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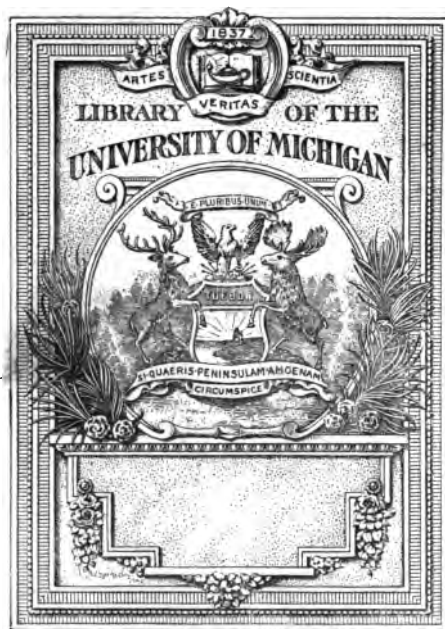
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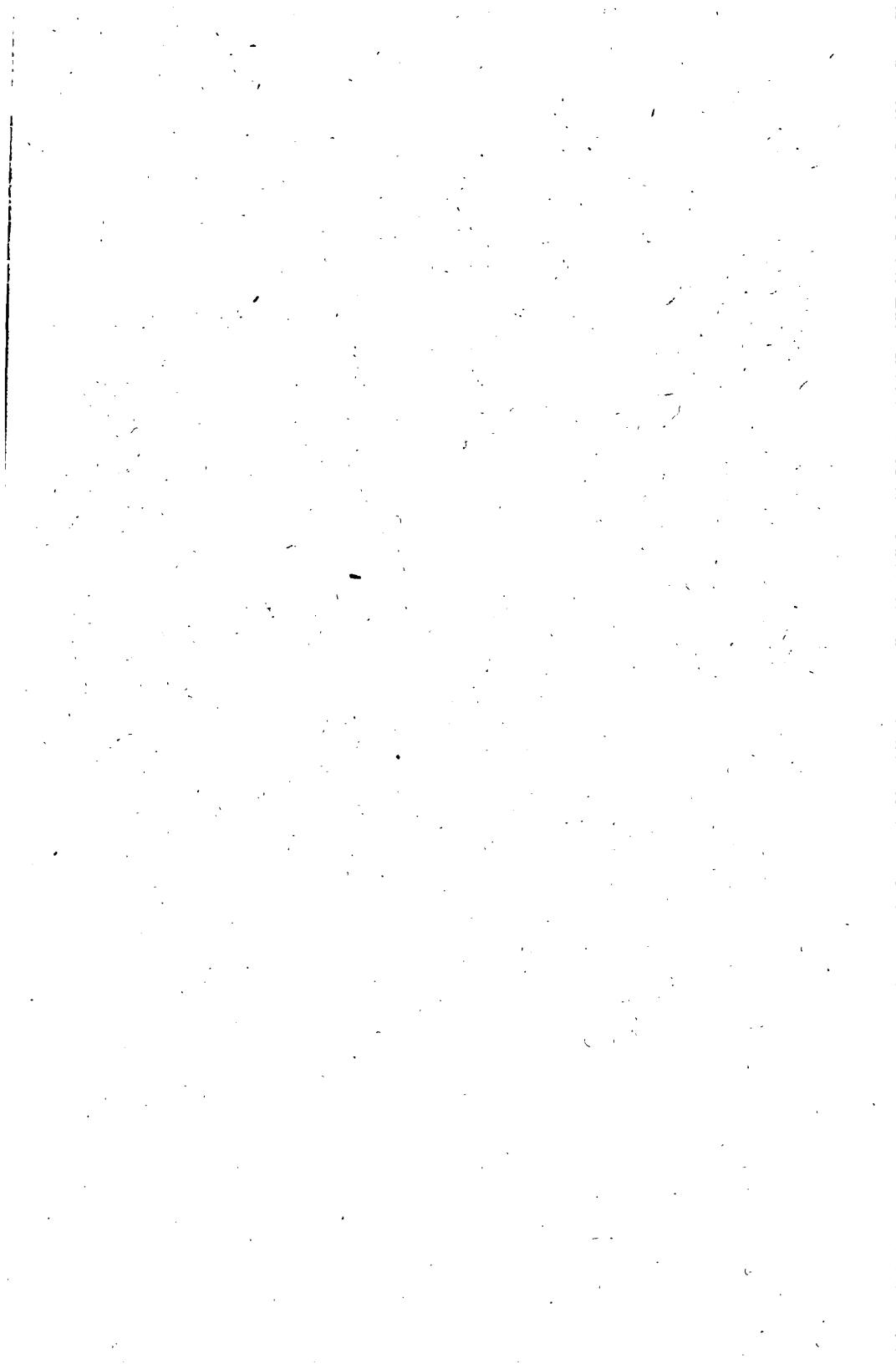


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SESSION 1907-1908

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NOTICE.

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LAW *VERSUS* SCEPTICISM IN THE SCIENCE OF
MEDICINE.

THE PRESIDENTIAL ADDRESS TO THE BRITISH HOMŒOPATHIC
SOCIETY DELIVERED AT THE OPENING OF THE SESSION,
1907-8.

BY ARCHIBALD SPEIRS ALEXANDER, M.D., C.M.GLAS.

President of the Society.

PART I.—PRINCIPLES.

GENTLEMEN,—In offering you my thanks for the crowning honour you have conferred upon me by electing me to the Presidency of the British Homœopathic Society, I am well aware that it is one which rests more on your goodwill than on any personal qualifications on my part. Were it not for this conviction, I should contemplate with despair the long and honourable roll of names belonging to those who have preceded me in this chair—names which will go down to posterity as those of men who have helped to make

history, in whose footsteps I can only hope to follow at a respectful distance,

"Since your royal grace
To one of less desert allows
This laurel, greener from the brows
Of *them* that uttered nothing base."

As we meet here to-day, in the security of an assured position in the scientific world, it is fitting that we should recognise afresh and offer a tribute to the memory of those early pioneers of our system of medicine who laboured so long and patiently for the establishment of its principles on a sure foundation, and into whose labours we enter now. They have left us the legacy of a noble example of earnestness, purpose, and self-sacrificing zeal, in the endeavour to introduce law into the art of medicine, where formerly only chaos reigned; and they have bequeathed to us likewise the responsibility of carrying on the work they so well began, and of propagating the truths for which we are indebted to their efforts. We are, perhaps, too prone to content ourselves with pointing to the laurels they have won, to forget that the victory is not yet complete, and that however great truth may be, yet it must be preached and propagated in order that it may prevail. To rest content with practising it, however important, is not enough. We may do that faithfully enough every day of our lives, thus proving that we have the courage of our convictions, and that we believe what we affirm. Yet all that we win from it, at the hands of our *confrères* at large, is at best that kind of half contemptuous, half good-natured tolerance accorded to the visionary or the fanatic. Some, indeed, as Dr. Dyce Brown has shown, have even adopted little bits of our practice here and there, yet without recognising or acknowledging the principles which underlie such practice. Hence any such crude attempts on their part are hardly likely to be attended by much success, but rather to bring the practice into disrepute. Mere empiricism in homœopathy is worse than useless, for it leaves individualism out of account altogether, and would soon result in the consignment of many remedies, invaluable in their proper spheres, to the *olla*

prodrida of ordinary polypharmacy. Empiricism is still the prevailing feature in the practice of the dominant school, and if I be asked the reason, I answer that it is because *law in medicine* has not yet obtained general recognition in their ranks. This is why much of the otherwise praiseworthy research of the present day, not being founded on a definite principle, only ends in failure, and new drugs, from which all sorts of marvellous results are promised, are too often destined to follow their equally unfortunate predecessors into the oblivion of disappointed expectations. It is not surprising, then, that the more advanced thinkers of the old school are assuming a highly sceptical attitude towards the employment of all or most drugs in the art of healing. The majority of them, these thinkers have over and over again alleged, and rightly so, are useless for healing purposes, or even worse than useless, for, if they cannot cure, they are too often harmful or even lethal in their effects.

One of the most recent pronouncements of this character fell from the lips of Sir Frederick Treves, on the occasion of the opening of an isolation hospital, at Preston, last June. He is reported to have spoken as follows :—

“The time was not far distant when the bottles on the doctors’ shelves would be reduced to a very small number, and resort would be had to simple living, suitable diet, plenty of sun and fresh air. He looked forward to the time when people would leave off the extraordinary habit of taking medicines when they were sick. Referring to the discoveries of bacteriological science, and the great reduction of mortality from infectious diseases, Sir Frederick said he looked forward to the time when it would be as anomalous for persons to die of scarlet fever, typhoid, cholera, and diphtheria, as it would be for a man to die of snake-bite in England.”

Now, there is a good deal in this utterance to which we need take no exception, and indeed may agree entirely with some of the sentiments expressed. We are all agreed as to the debt we owe to prophylaxis and the improved hygienic conditions of life that mark the present epoch. By the former the most dreaded of the zymotic diseases have been

materially reduced, so that such fevers as typhoid and typhus are comparatively rare in private practice, and epidemics such as small-pox and cholera have been almost suppressed. Again, the modern system of hygiene, securing as it does better housing, improved drainage, a purer food and water supply, with the opportunities given by the travelling facilities of the day for fresh air and exercise, has contributed not only to the prevention of disease, but also to the increase of longevity.

Yet, notwithstanding all that has been done in these directions, the results do not appear to be so marked as one might expect, that is to say, if our impressions are to be based on statistics. The untrustworthy character of these is proverbial, and the late Dr. Barnes, in addressing a medical society in a northern city, is reported to have said that "if any one should ever succeed in proving that black was white, that feat would be accomplished by means of statistics!" In the absence of any means of forming an opinion, we are, however, obliged to fall back on them; and by way of illustration I will quote a few figures relating to a town where I was long resident, namely, Plymouth, and which may be taken as typical of most provincial towns. When I went to live there in 1885 it was in a decidedly insanitary condition, the death-rate being high, namely, 18·3, and some districts greatly overcrowded, the average number of persons to the acre being 57·1. Consequent on the efforts of a skilful medical officer of health, backed up by a progressive municipal council, extensive improvements were gradually effected, both in the general sanitary arrangements of the town and in the housing of the poor. What, then, was the net result of these improvements? In 1905, twenty years after the first date referred to, the mortality had only been reduced by 1·3 per cent. per annum, and this, although the inhabitants per acre had come down to 49·3. In zymotic diseases a substantial decrease was obtained, since in 1885 the death-rate for these was 2·31 per cent.; while in 1905 it had fallen to 1·31, representing a diminution of about as 4 is to 7. Thus, by improved hygiene, a much smaller proportion of beneficial result seems to have

been effected in the general rate of mortality than in that obtained by the prevention of zymotic diseases. In one of the latter, however, the results were somewhat startling, and quite contrary to what might have been expected from the alleged results elsewhere. I allude to diphtheria, for the treatment of which anti-toxin was early adopted in the fever hospital at Plymouth, as well, no doubt, as by private practitioners. In 1894 the mortality due to that disease is recorded as 7.4 per cent., while in 1905 it had risen to 11.5 per cent. Not a very encouraging result for serum therapy!

In one fell disease that has long been one of the greatest scourges known to humanity, and that has swelled the annual death-roll perhaps more than any other—I allude, of course, to phthisis pulmonalis—we all know that a change has been effected by the introduction of the open-air treatment, so that where this has been carried out the mortality has certainly been reduced, and many cases have been permanently cured. Actual figures that can be relied on are difficult to obtain, but I understand that at Nordrach 90 per cent. of the cases treated are said to be cured.

The element lacking, in order to make these statistics reliable, is some adequate means of following up the cases of alleged cure, so that by their subsequent history we might ascertain the percentage of permanent cures, and also that of relapse.

It has been stated that the improved conditions of life generally have led not only to a diminution of disease, but also to increased longevity. That this is more than a mere impression, based upon the circumstance that more very aged people seem to be met with now than some years ago, is borne out to some extent by the returns for the last decade or so in the town already mentioned. There, in 1892, the mean age at death was 36 years and 8 months, while, in 1900 it had increased to 38 years and 9 months, the result being a gain of over two years in the expectation of life, which, though not very great, may no doubt be attributed to the causes stated. Were the same rate of increase maintained for the next 130 years, the man who now dies at the age of 80 would reach the century that seems to be the

goal some idealists would strive after. Needless to say that such a calculation is Utopian, and, proving too much, can never be realised.

But after all, when prophylaxis has done its utmost in minimising the outbreak of disease, when the most perfect hygiene has accomplished all that is possible to prevent its spread, or reduce its virulency, when modern scientific research has exhausted all known resources in this attempt, there still remain, and always will remain, a large proportion of morbid conditions that will successfully resist all such efforts, whether defensive or offensive, to prevent their occurrence; and when they do present themselves, some means of combating them must be resorted to. Among such conditions I need only allude to many of the ailments of childhood, certain epidemics which have not yet been suppressed, many of the tropical diseases, others due to atmospheric influences which no amount of hygienic precaution can ever expect to cope with, together with the ailments of advancing years and declining vital power, for which no prophylactic has ever yet been discovered.

Of epidemics I will only instance one, namely, influenza, which hitherto has defied all rules and regulations in its manner of onset, propagation and recurrence. It breaks out at all seasons of the year, attacks all classes of the community, both in the tropics and in the arctic regions, on the mountain-top and in mid-ocean, in the crowded tenement, and in the castle as well as in the cottage.

Now, when these ailments do attack us, seeing that hygiene can neither prevent nor cure them, what is to be done for their relief? According to Sir Frederick Treves, to take medicine when we are sick is an extraordinary habit, and the time is not far distant when we are to be finally purged from such pernicious ways. When that longed-for goal shall have been reached, nothing will remain but, in a fitting frame of resignation, to take to our beds and cheerfully await spontaneous recovery or dissolution. The only resources at our disposal under such circumstances, beyond mere expectancy, will be diet and nursing, which, though of the utmost importance as adjuncts, are but feeble weapons

by themselves against the ravages of disease. Whether the public generally will ever attain to that degree of enlightenment, awaited so ardently by Sir Frederick Treves, which shall reconcile them to such highly scientific treatment, will be revealed in the fulness of time; but we may be certain that those who have recognised the existence of law in medicine, as opposed to the prevailing scepticism of the day, will never subscribe to these limitations.

It is not a little remarkable that men of the highest scientific attainments and the most enlightened views should so generally express dissatisfaction or want of confidence in the ordinary practice of drug exhibition in the treatment of disease. On all hands, whether in private conversation or in public utterance, the same dominant note of distrust may be recognised. With the exception of a few specifics, drugs are useless, or worse than useless as a means of cure. They are given, not because any definite result is to be looked for from their use, but because we are wedded as a matter of habit and tradition to the custom of giving them, because the public expect to be drugged, like to be drugged, and because without drugs they would never be satisfied that anything worth the name was being done for the relief of their sufferings. It may indeed even be urged that, if any good is to be effected at all by the extraordinary habit of taking medicines, it is by the suggestive influence which the latter may exercise over the patient's mind. Apart from such influence, say they, drugs are inert, or possibly harmful.

In the light of general experience of the results of the usual methods of drug administration, it is not difficult to understand why such widespread scepticism should exist. What is remarkable, however, is that, while error should be recognised, truth should not have been generally arrived at. It may be accepted as a sound principle that if there be any advantage at all in error, in no matter what domain of thought, it is that its recognition may, or ought to, direct attention to the existence and investigation of truth. It is not a little curious, however, that while so many scientists of the day have admitted error in using drugs, they have not yet

apprehended, what ought to be apparent to the meanest mental capacity, that there may or must be a definite law to regulate and govern all drug action in the human system, and that the morbid effects of drugs observed on the healthy human body can afford the only reasonable indications for their employment in disease. Where scientists have failed so far is in this, that, while admitting the fallacy of accepted methods, they have not had the courage to take the next obvious step forward, and recognise that there must be a law or rule to regulate drug selection and therefore to determine drug administration. There are certain well-ascertained laws in every other department of science—laws that regulate all change and movement in the sidereal heavens, laws of light, heat and electricity; of statics, of hydraulics, and all forms of kinetic energy; but while law and order are freely recognised as essential in all these, such is practically denied in the domain of medicine. And this is the more surprising when we reflect that the existence of law or rule in medicine has been demonstrated for more than a century, by thousands of competent practitioners, in millions of suffering subjects. It may truly be claimed by all of us here to-night whose eyes have been opened to see it, that—to paraphrase a well-known quotation—if hygiene has saved its thousands, the rule of similia has saved its tens of thousands.

What now are the reasons why this law or rule obtains but such comparatively scant recognition? For if we can discover the reasons, we may be better prepared to rebut them.

(1) One of the most potent, and that will probably be the first to present itself to the mind, is prejudice. This, I think, is one of the most formidable obstacles to be overcome, especially among the older communities on this side of the Atlantic, for in America, where the thinking public are not so much enslaved by the trammels of tradition as here, there seems to be a much greater readiness to investigate, and admit the justice of our claims. How then is such prejudice to be overcome? We know what vigorous efforts are being made in this direction by one influential body in

this country—the British Homœopathic Association—by means of the varied agencies which it employs, such as lectures, literature, and opportunities afforded for practical instruction for those who are willing to avail themselves of them. The latter are, perhaps, the most important of all, for it is often said, and rightly so, that the best proof of the accuracy of our assertions is the clinical one. Yet, in spite of all that has already been achieved in this direction, in spite of all the results that have been obtained in hospital and private practice, published and widely circulated in the medical journals, it is not a little remarkable how these are quietly shelved, ignored, or attributed to various fortuitous circumstances. We can only hope to overcome such prejudice as this by patient continuance in well doing, and by the gradual education of the masses to permeate all ranks of society, whether lay or professional, with the practical demonstration of the truth. Such methods are necessarily slow, and demand great diligence and determination, but their fruit will assuredly be reaped in the end.

(2) Another obstacle to the acceptance of our views is the employment of the infinitesimal dose. What characterizes the average mind is materialism, the mental view being so obscured by what is palpable, ponderable, and perceptible, as to be blind to the hidden, imponderable forces by which Nature carries on her mightiest operations. These have so often been illustrated that it scarcely seems necessary to refer to them again, and the greater recognition that has been given of late years to the well-nigh infinite divisibility and infinite activity of matter, may justify the expectation that such recognition may be extended to the infinitesimal in medicinal activity as elsewhere. I may, however, be permitted to offer one fresh example, not only of the power of the infinitesimal in Nature, but of what may be termed the selective intelligence of the living cell. A recent writer says: "It may seem foolish to talk of 'soul' in, say, a minute and microscopical creature in which the material framework is limited to the simplest form, but I would refer to an interesting observation of Cienskowski on the *Vampyrella spirogyræ*. This is a minute red-tinged cell,

devoid of any special limiting membrane. It is a formless dab of protoplasm. But this formless mass of protoplasm will take but one form of food, a particular variety of algæ, the *spirogyræ*. It throws off projections, and so creeps along until it meets with a *spirogyra*, then it attaches itself to the cellulose coat, enclosing one of the cells of the latter; dissolves the coat, sucks the contents of the cell, and travels on to the next. It will not attack any other class of algæ, or even take up any other substance, although tempted in various ways to do so." From the *Vampyrella spirogyræ* it is but a step to the ultimate protoplasm of the body cell. If the one infinitesimally minute organism has the power of selecting the infinitesimal and only appropriate particle of nourishment requisite to it, why not the other? Is it not conceivable, too, that if it have this power in healthy, it should have it likewise in morbid conditions? What is to prevent it seizing upon any appropriate particle presented to it in the blood plasma in the one case as much as in the other? If, then, the cell does possess this power of discrimination, it follows that it must also be aware of such a departure from the normal as to render appropriation of this kind necessary. Not only so, but if such material be not ready to hand, it seems as though it must have been induced by a wise providence with the power of making its need known, in the shape of such an alteration in its conditions and environment as to give rise to what we know as symptoms. Every such departure from the normal must be attended by some sort of evidence, whether as pain or perverted function, or it may be, eventually, in structural change. What are symptoms but Nature's signals of distress, her warning cry of danger and prayer for help? And from our point of view these serve not only for the recognition of the danger, but for the determination of the appropriate means of relief. But if on the one hand Nature thus holds up a picture to us of the particular way in which the cell or the aggregate of cells has departed from the normal, how, on the other, are we to provide it with that which shall restore it to the normal? For us, from the standpoint of familiarity with the subject, the answer is obvious, itself

suggesting yet another obstacle to the general acceptance of our system, and that is :

(3) Drug provings on the healthy human body. The pure effects thus obtained, not *in corpore vile*, but *in corpore sano*, are what alone can enable us to suit the disease picture with a corresponding drug picture. This alone will answer to Nature's cry of distress, and supply the particular kind and form of infinitesimal particle which shall restore her perverted equilibrium. We are not here or now concerned in proving or explaining why this should be and is the case. The result has already been demonstrated times without number, and by inductive reasoning we are justified in the law or rule of cure that has therefore been formulated. Why, then, it may be asked, should drug provings be an obstacle to the adoption of our views? That it is so is beyond question, and this has been emphasised recently in the blue-book issued by the Royal Commission now sitting for the investigation of vivisection and its methods. One objection there raised to the system was that, if provings were systematically carried out in man, before long there would be no provers left to carry on the experiments, because they would all soon die off as a result of them. Such provings are therefore impracticable, say they, and cannot be tolerated. Experiment as much as you like on cats and dogs, and kill as many as you will, but draw the line at sacred man ! They seem to forget that effects produced in animals may be totally different from those observed in man, and are therefore quite unreliable as a guide to treatment. They seem ignorant, too, of a certain uncontrovertible fact—that drug provings have already been carried out by a noble band of men and women in the past, and by others even in our day, actuated by regard for the welfare of suffering humanity, to the accomplishment of memorable feats of self-denying endurance. There is also an evident misapprehension on their part as to the limitations of such provings. They seem to imagine that none can be sufficiently instructive unless pushed to lethal effects. Were this necessary, it would, of course, be prohibitive ; but we know how much valuable and practical information can be

obtained far short of this. What is necessary is to ascertain the direction in which the drug acts, what functions and organs are affected by it, and in what manner. I shall have to allude to this subject again in a later portion of this address, and then shall endeavour to show how the lethal effects of drugs are practically useless for our purpose.

(4) A fourth objection to our rule of practice is that it is alleged to be a univereal one. Now it may be at once admitted that it is not univereal, and it is hardly conceivable that any sane practitioner should claim it as such. What we have to insist on is that the law of similars is one that is chiefly applicable to curable diseases, and does not profess to cure those referable to gross tissue changes, such as those due to malignant diseases and the wearing out of the body in old age, though it can and does arrest the latter. It is claimed that it is a *curative* system, and in this respect contrasts sharply with that of the dominant school, which is essentially *palliative*. There is much misunderstanding on the part of the dominant school as to this important point. For example, when conversing recently on the subject of homœopathy with a well-known consultant of that body, I was asked, "What would you do in a case of dilated heart?" Now I should as soon expect to radically cure a dilated heart, due to organic changes, with any drug, as I should to restore an amputated limb by such means. For there is no true simillimum for the one any more than for the other. True, we do possess drugs closely related to the heart in many of its morbid conditions, and these can do much in the way of their arrest or amelioration, but to actually cure—that is to restore a damaged heart to its normal condition—is a feat beyond even the resources of homœopathy. We ought, therefore, in dealing with such questions, to state our limitations clearly, and so protect ourselves from the condemnation that would naturally attend upon too extensive a claim. What we have to insist upon is that a *law of cure* does actually exist, and that it is the only one that can afford any reliable and truly scientific guide for drug selection in the treatment of curable diseases. Some there are—perhaps the majority

of our body—who maintain that no such *law* exists at all, but only a rule of practice, and hence the adoption of the formula, “*similia similibus curentur*” instead of *curantur*. But such an amendment I conceive to be illogical, for it is evident that every *rule* must depend on a certain *law* or principle. It is a law of Nature that similars are actually cured by similars, therefore let them be so treated. Now, I believe that it is the failure on the part of otherwise most intelligent practitioners to recognise the true nature and limitations of our law that becomes the most potent factor in their refusal of it. Failing to realise that it only claims to deal with curable diseases, and their own common sense convincing them that other means must be resorted to for the alleviation of certain incurable conditions, they jump to the conclusion that, were they to adopt our practice, they would be debarred from using any kind of palliative, on pain of being charged with sailing under false colours. But it cannot be too strongly insisted upon that the homœopathic practitioner is one who, to all that is common to the profession of medicine, adds a knowledge of the law of similars. Thus he is free to use any legitimate means for the relief of suffering, though, to the thorough master of his subject, the occasions on which he has to resort to mere palliatives will be but few and far between. Still, I suppose there are few of us who are not ready to avail ourselves of such drugs as the infusion of digitalis for the relief of a dilated heart and its attendant dropsy, or who are not willing to induce euthanasia by the administration of an opiate in some painful and necessarily fatal disease.

In what has been said, it is not intended to assert or imply that the homœopathically indicated remedy can never have a palliative effect. Indeed, it is well known that the carefully selected medicine can and does alleviate painful symptoms, and even in hopeless cases, though it cannot cure, may produce euthanasia, and so smooth and soften the asperities of the downward path, quite as effectually and without the sense-deadening tendencies of most narcotics.

After making full allowance, however, for all hindrances to the acceptance of our principle, it is not a

little remarkable that it should not obtain more general recognition, particularly as its partial applicability is freely admitted in many quarters; and that if anything has transpired in recent times to change the all-prevailing sceptical note that marks our age, it is this: that any true medical advance that has been made of late years has been on truly homœopathic lines. By way of illustration, I need only refer to the now well-established opsonic treatment of certain microbic diseases, which is admitted by its exponents to be distinctly homœopathic. But while this is the case, it seems phenomenal that it does not appear to have occurred to them that the principle might be extended to other diseases, or indeed be accepted as a law of general applicability.

Such then, gentlemen, are, I think, some of the reasons why we may reasonably decline to agree that the habit of taking medicines when we are ill is so absurd or extraordinary, for, when administered in obedience to a well-determined law, the results will assuredly forbid our being drawn into that vortex of medical scepticism that seems to be claiming so many victims nowadays. Thus, too, we may congratulate ourselves that, in spite of all such scepticism, we do still retain reliable therapeutical resources with which to cope with actual disease, and have not to rest content with the limited *rôle* of prophylaxis.

PART II.—PRACTICE.

Having endeavoured to show that there is such a thing as law in medicine, I now desire to consider briefly what means we possess of applying it in every-day practice, or, in other words, what are the best methods of drug selection in accordance with that law?

We are sometimes taunted with being divided up into sects within our own ranks, one party advocating high, another low dilutions, a third section holding that the symptomatic method is the *ne plus ultra* of the art of prescribing, while a fourth maintains that a pathological basis for the choice of the simillimum is the be-all and end-all of that art. That this diversity of opinion does

exist among us is undeniable, but it proves that, while the principle underlying our practice is unalterable, and is maintained by all, yet a considerable degree of elasticity is possible in its application. It is certain from the accumulated mass of evidence, that good results are obtained by all, whether by the use of high or low dilutions, or by varying methods of drug selection. The problem is to determine which, or if any one, method is best or better than another, or if all have their appropriate place and sphere of usefulness. Mental temperament and education both probably play an important part in determining the practice of the individual. Some cannot shake themselves free from the trammels of materialism, and to such the cruder forms of drugs commend themselves; while others, whose minds are perhaps more open to recognise the dynamic activity of the infinitesimal, naturally incline to the potentised forms. In America, where students are systematically trained in some of the colleges to the habitual use of high dilutions, it is said that they would feel as nervous about using low dilutions as many on this side of the Atlantic would feel in using the high. For all, personal experience must be the final court of appeal in such questions.

What, then, are the various methods of drug selection at our disposal, and what are their comparative merits?

It may be convenient to consider them under four heads: (1) The symptomatic; (2) the pathological; (3) the etiological; (4) the conjectural.

The therapeutical use of the nosodes, if included at all in this category, would probably fall under the etiological head; but as they stand on the debatable ground between homœopathy and isopathy, it may be best to regard them as *sui generis*.

The order in which the four classes are given is not supposed necessarily to indicate their comparative value, being wholly arbitrary, and indeed they all overlap more or less.

The principle of symptomatic selection was the natural outcome or sequence of the conclusions reached by Hahnemann in the evolution of his system of therapeutics, and therefore falls to be considered first. If the pure effects of

drugs on the healthy were to be made available for the treatment of disease, according to the law of similars, the only means of attaining this end was to match them to the discernible symptoms of those diseases, and that irrespectively of the morbid changes underlying them. Hahnemann held that "the manifestations of disease discernible by our senses at the same time represent every internal change, and expose to view, so to speak, the whole disease."¹ In other words, he regarded the sum of the symptoms, objective and subjective, as Nature's danger signals, or means of communicating to the observer, not only the character of the malady they represented, but also indicating the drug that corresponded to them, and which was required for their removal. The removal of the whole of the symptoms was, he taught, the removal of the disease itself.

A general law of drug selection is necessarily of the utmost value, covering as it does the whole field of ascertained drug action, and rendering possible its practical application to all known curable disease.

It has this further remarkable advantage: that the appropriate drug can thereby be selected for the cure of diseases to which we may be unable to give a name, and of whose pathology we may be profoundly ignorant. For example, after some seventeen years' experience of the epidemic known as influenza, how much has any knowledge we possess of its pathology aided us in combating its ravages? What is its pathology? What are the morbid changes underlying it? It is true that pulmonary and other lesions may accompany it; but these are but secondary, and not peculiar to it. Referring to them, Goodhart says: "There are no obvious morbid characters by which, apart from the history of the case, we can recognise such changes as belonging to influenza."² Nor has the isolation by Pfeiffer of a bacillus in the mucus of the respiratory tract in patients suffering from this ailment, and which he holds to be *sui generis*, helped us at all either in its prevention or cure. Yet I venture to say that none have been more suc-

¹ "Organon of the Art of Healing," § 12.

² "System of Medicine," vol. 1, p. 696.

cessful as a body of practitioners than we in the treatment of this malady. And to what principle of drug selection do we owe our success? I answer, to the symptomatic alone, and in no wise to the pathological. If we understood the pathology of influenza to-day, as well as that of malaria or of enteric fever, I feel assured that we should not be in any better position than now with regard to its treatment. The same may with justice be said of many other diseases whose pathology has only been ascertained with any degree of accuracy within the last few years, but which were quite as successfully treated by our pathologically ignorant predecessors as by the most up to date among us to-day. Nay, the records of their achievements too often put us to shame now, and it is not unlikely that the reason may be that we may be unconsciously biassed or misled by our pathological preconceptions; while they, trusting solely to the outward manifestations discernible by their senses, reached the goal, certainly, swiftly and safely.

There is yet another advantage to be gained by this mode of prescribing, and that is that concrete diseases often exhibit protean manifestations, and this principle supplies us with the means of dealing with them in all their different phases. For it is not sufficient to label a particular disease with its appropriate drug, such as baptisia in typhoid fever, bryonia in pleurisy, and so on. As so often insisted on by Hahnemann and many of his followers, it is the patient in all his varying physical conditions that is to be treated, and not the disease from which he is suffering. It follows, therefore, that as symptomatology alone can give expression to these, so that means alone can supply adequate drug indications. By way of example, perhaps I may be permitted to relieve the tedium of what I fear must be a rather dry subject, by citing a case or two from every-day practice.

In December, 1905, a thin and worn-looking lady, of 39 years, called on me for advice on account of sudden and severe attacks of pain, referable chiefly to the right hypochondrium. The pain began under the right ribs, and passed downwards towards the groin, causing a feeling as if the body would split in half. It generally lasted about

two hours, and was attended by nausea and by contraction of the abdominal muscles, so that defæcation usually followed the attacks. There was no dysuria, the water was normal, and the paroxysms were not followed by jaundice. Physical examination revealed a smooth and rounded swelling below the right ribs, with tenderness on palpation, and the tumour could be partially pushed up under the liver, descending again when the pressure was relaxed. The case was diagnosed as prolapse of the right kidney. Other symptoms, all pointing to a condition of neurasthenia, were also present; but as the attacks of pain urgently called for help, treatment was first directed towards their relief. How was this to be effected? Three courses seemed open: (1) Suture of the kidney; (2) support by an abdominal belt; (3) the administration of the simillimum.

The last course, though some might think the least likely to be effectual, was chosen, and the symptomatology of the case invoked as a guide to the remedy. The symptoms were somewhat meagre, consisting of pain, its situation, character and direction. I will not weary you with a detailed comparison between drug and disease symptoms in this case. Suffice it to say that the remedy prescribed was taken twice daily for a fortnight, then less frequently, and finally only if any pain occurred. The attacks became gradually less frequent, till in March they ceased altogether. I examined the patient again on April 13th, when the swelling and tenderness under the ribs had entirely disappeared. The drug that appeared thus to cure the condition was *berberis* 1x. The diagnosis may perhaps be called in question, but I think the physical signs justified it. But the subjective symptoms alone guided to the remedy, and not the pathology of the case, to which the drug, as far as we know, has no definite relation. It does, however, set up pain, similar in site and character to that experienced by the patient, and, therefore, not only relieved her suffering, but appeared to anchor the kidney in its place as securely as kangaroo tendon could have done. Some may be sceptical; but is it more incredible that *berberis* should cure prolapse of the kidney than that *chamomilla* should cure prolapse of

the uterus, or ignatia that of the rectum? Yet both such cases have been vouched for.

I do not claim that this lady was cured of all her ailments, as others of neurasthenic origin remained. Nevertheless, what threatened to incapacitate her for the activities of life was removed, and she was thereafter enabled to resume her duties as a district visitor in the slums of Hoxton.

The next examples I have to give are not cited because of the gravity of the ailment, but to illustrate the unexpected remedies to which this method of selection may lead one.

In April and May, 1906, within a few days of each other, two patients, curiously enough having the same name, though unrelated, applied for treatment for the same complaint. This was stiffness and pain in the maxillary articulation, in the one case on the right side, and in the other on the left. In both the pain was aggravated by pressure of the teeth together, as in mastication, and was a source of real annoyance to the patients.

What were the nature and cause of the trouble? It seemed likely that the pain and stiffness were due to some degree of synovitis, with probably effusion of fluid into the joint. A consideration of the probable pathological conditions at work would naturally have suggested apis or bryonia—the former on account of its property of producing fluid effusion, and the latter for that of causing inflammation of fibro-serous membranes. These two remedies had been prescribed in previous similar cases, but with disappointing results, and hence the subjective symptoms alone were followed in selecting the medicine given. That the latter probably was the true simillimum was proved by the sequel, both patients soon recovering permanently under its use. The remedy given was one that would hardly occur to the mind in relation to such an ailment. It was *corallium rubrum*, which has in its symptomatology, "pain in left articulation of lower jaw, as if sprained, on drawing jaw far downwards, and also when biting and yawning," a close enough picture of the symptoms complained of.

These examples may suffice to illustrate this mode of drug selection, and doubtless all my hearers could supply others, from their own every-day experience, of a still more striking character. The method needs neither defence nor apology, and if any one should dispute its importance, let him give it up for one week only, and then candidly report the result.

Pathological Prescribing.

Valuable as symptomatic prescribing is, we are not limited to it in the choice of the simillimum.

Pathology has, undoubtedly, a place in guiding us to the desired result, and, indeed, the aim of some would be to confine all prescriptions to those drugs which can be demonstrated to be definitely related to the morbid changes of the diseases for which they are given. In other words, before a drug is exhibited on a sound scientific basis, it must be ascertained that it is capable of setting up a morbid change resembling that underlying the outward manifestations of any given case of disease. For example, according to this method, before a case of prolapsed kidney could be prescribed for, it would be necessary to discover a drug that had actually caused a similar prolapse! Obviously such a prescription would not be homœopathic at all, but isopathic. It is, nevertheless, true that various drugs do actually give rise to certain pathological changes not identical with, but resembling, those of actual disease, familiar examples being the effect of bryonia in exciting inflammation of the pleura, and other morphologically-allied structures, and of phosphorus in setting up consolidation of the lung, subcutaneous hæmorrhages, and fatty degeneration. From what has just been stated, it will be inferred that what I understand by pathology, at all events for the purposes of this paper, is perverted physiological action, leading to morbid processes, and resulting in morbid organic change.

It has been argued by some—and it may be a consummation devoutly to be wished—that, could a definite relationship be demonstrated between drug effects and diseased conditions in the morbid changes set up by each,

the principles of homœopathy would thereby be placed on an unassailable basis, and would commend themselves in a much higher degree to the scientific mind. Now, if it were possible, in every case, to show that the drug we administer had not only produced certain subjective and even objective symptoms in the provers, but that it had also set up morbid structural changes similar to those of the disease under treatment, then such a result might, no doubt, be expected. Unfortunately, what we have to face is the circumstance that it is seldom possible to push the proving of drugs to such an extent as to set up structural changes, and the only data of such a nature available to us are the histories of accidental poisonings. Such toxicological effects can be utilized in certain cases, but many of them, while they represent some picture of known disease effects in change of structure, are hardly of much practical value, because, when morbid processes have advanced to such an extent as would be represented by the drug effect, they have usually passed beyond the sphere of hopeful treatment.

In his presidential address to the Homœopathic Congress of 1894, "On the Relation of Pathology to Homœopathy," Dr. Galley Blackley said: "Modern investigation leads us to expect structural changes as underlying all disordered sensations and functions, and our specialists could not well devote their leisure and superfluous energies to a better task than that of re-proving a number of our older remedies; by the regular use of the stethoscope, microscope, or thermometer, of ophthalmoscope, laryngoscope, or speculum, they will soon be in a position to give us the true meaning of symptoms at present isolated and without definite sense."

This statement seems to point out the *rôle* which pathological study may usefully play in assisting us in our drug selection; but, at the same time, its application in practice may too often only confirm what has been already pointed out, that when morbid phenomena present themselves of such nature and extent as to correspond with the grosser effects of certain drugs, the latter will be powerless to arrest or neutralise those phenomena, the development of these being concurrent with a stage of the disease they accompany too advanced to be successfully dealt with.

As an example of what I allude to, I may refer you to a case I reported in the *Monthly Homœopathic Review* for January, 1897, in which the diagnosis of chronic Bright's disease was made solely by the aid of the ophthalmoscope. An examination of the fundi oculorum revealed the typical signs of albuminuric retinitis, and the existence of chronic nephritis was confirmed by analysis of the urine, which was loaded with albumen. In this case the subjective symptoms were few, and not sufficient of themselves either to indicate the nature of the disease or the appropriate treatment. The discovery of the pathological condition, however, did determine the requisite remedy, namely, merc. cor., the relation of which to the morbid renal changes of Bright's disease being well known.

Under its use a remarkable improvement took place, both in the objective condition of the retina, which almost cleared up, and in the state of the urine, which, after a few weeks, showed only a trace of albumen. The improvement, however, was not permanent; and, in the autumn of the same year in which the patient applied for treatment, the morbid symptoms re-appeared, and in October he died.

Here, then, although the recognition of the pathological state actually guided to the appropriate remedy from that standpoint, yet the disease was too far advanced for a cure to be effected.

But it may be asked: If pathology only helps to the selection of the simillimum when too late to cure, is it therefore to be discarded altogether for this purpose? I answer, by no means, for there are many cases in which its aid is invaluable, and that obviously in the early and curable stages of some diseases. One instance of such employment may suffice. In "Clinical Notes" in the *Monthly Homœopathic Review* for January, 1895, there will be found a short report of a case of pleurisy with effusion and a temperature of over 102°, the chief characters being "back bulging on left, dulness on percussion all over, vocal fremitus absent." Apis was the remedy prescribed, under which a rapid recovery was made. The report is accompanied by the following remarks: "Apis was not selected on subjective symptoms,

but on purely pathological grounds. There is no evidence that apis ever caused hydrothorax, but its well recognised power of inducing œdema of the cellular and mucous tissues suggests its affinity for fibroserous membranes likewise, and indicates the general direction of its action. Subjective symptoms, suggestive of pleuritic effusion, are not, however, wanting among the provings, *e.g.*, oppression of chest, dyspnœa, short rapid breathing, pulse accelerated (*vide* "Cyclopædia of Drug Pathogenesis," vol. i., p. 317); but inasmuch as these symptoms are common to other pulmonary conditions, they do not form a sufficient guide for drug selection."

Oddly enough, another member of this Society, Dr. McLachlan,¹ some time afterwards reported another case of pleurisy which also recovered under apis, selected chiefly on symptomatic grounds. Thus, just as all roads lead to Rome, so both the symptomatic and pathological methods of selection are capable of conducting to the same goal; and where this is the case, the latter only confirms the reliability of the former method.

Turning now to the etiological mode of drug selection, we are confronted by so vast a field of enquiry, that nothing more than the fringe of it can be touched on an occasion such as this. It embraces the whole question of heredity, the various dyscrasiæ, the remaining effects of past diseases from which patients may have suffered, traumatism, the past effects of cold, heat and moisture, those of over-indulgence in, or abstinence from, food and drink, besides idiosyncracies of all kinds, and the influence of age and sex.

It was the necessity of discovering predisposing causes as a basis for treatment in chronic disease that led Hahnemann to his theory of psora, which in terms of modern medicine may be translated *dyscrasia*; and embraces, not only suppressed skin affections, but all the manifestations due to tuberculous, syphilitic, gouty, and other morbid conditions underlying many of the ailments we are called upon to deal with.

¹ *Monthly Homœopathic Review*, Sept, 1897, p. 537.

To this we owe all the range of so-called anti-psoric remedies, such as sulphur, calcarea, silica, lycopodium, graphites, and many others, the use of which is largely determined by etiological considerations.

One of the most interesting and striking examples of etiological prescribing that occurs to me is in the well-known case described by the late Carroll Dunham in the "Science of Therapeutics,"¹ where chronic deafness of thirteen years' standing was cured by mezereum 30. On enquiring into the history of the case, he ascertained that the patient had suffered in childhood from eczema capitis, the head being covered with thick crusts, from underneath which white pus exuded. This was said to have been "cured" by means of local applications, but the so-called cure had been followed by deafness. Dunham therefore prescribed mezereum, which presents an accurate picture of such a form of eczema, and ought to have been given for it, and that drug effectually cured the deafness. I need not weary you with a succession of such instances, but only remind you of the familiar use of arnica in trauma of muscular, and of hypericum in that of nerve tissue; of dulcamara and rhus in affections due to exposure to damp; of nux in the nervo-bilious and pulsatilla in the mild and lymphatic temperament, as well as a host of other remedies that will at once suggest themselves to you.

If we are to admit the nosodes to the category of homœopathic remedies, their use must also depend on this principle, for I suppose it is the underlying dyscrasia in any given case that indicates chiefly the corresponding nosode. Etiology, indeed, is rapidly becoming an increasingly important factor in the elucidation of the therapeutic problem, for it is on this principle that most real medical advance has recently been made in the ranks of the old school, leading her investigators by a different path to the same goal at which Hahnemann long ago arrived. I allude, of course, to the now well-established opsonic treatment of which our nosodes were the forerunners. Whether the most recent forms and methods in which such substances are

¹ P. 462 *et seq.*

administered present any substantial advantage over our own older ones, time and increased experience alone will show. It is to be hoped that the mass of evidence now being accumulated in the London Homœopathic and other hospitals on this important subject may receive public prominence ere long, and may compare favourably with the results claimed by the newer methods.

It has been remarked that all the methods of drug selection overlap more or less. So here, for in the etiological we have—at all events in the use of the anti-*psorics*—to rely on symptomatology for the selection of the particular agent that shall meet the underlying dyscrasia, for even in two similar cases of the latter there will be individual differences that may demand a different remedy.

The conjectural plan need not detain us long. It is indeed but a modification of the pathological, as the name implies, being a species of guess at the probable morbid change that may underly the condition to be treated. In some obscure cases, where symptoms are too meagre to point out the requisite drug very clearly, it may be usefully employed. A quotation from one of the late Dr. Dudgeon's racy little works will indicate its use better than any words of mine. A lady had applied to him for treatment on account of noises in the ears of fifteen years' duration. Other symptoms were few, and inspection with the speculum gave a negative result. Dr. Dudgeon states that he diagnosed subacute inflammation of the periosteum of the middle ear, and prescribed aurum 3. This aggravated the noises, and iodine, which followed, gave no better result. Sulphur was then prescribed, and finally silica 30, after using which for a fortnight the patient reported marked improvement, and ultimately recovered entirely. "In this case," he states, "the selection of the remedy was assisted by speculation as to the pathological state on which the symptoms depended. . . . That the remedy was successful affords a strong presumption that the pathological speculation was correct."¹

The result of such speculation must obviously depend on

¹ "Rational Medicine," p. 30.

the accuracy of the view taken of the case, and, if incorrect, the result will be necessarily negative.

Such, then, gentlemen, are the various means by which law in medicine may be carried out in daily practice. I am not at all concerned now to advocate one to the exclusion of another or the rest. Rather let each adopt that which his experience, success, or natural bent of mind, may commend to him. Most will probably find that all are valuable in their own place, and none could be well dispensed with, though, if we were called upon to choose one out of all, the symptomatic plan would probably be the one we should least care to part with.

For the successful application of all or any of them, there is but one way, and that the constant, patient, daily study of the *materia medica*. It is said that one of our most competent prescribers, the late Dr. David Wilson, used to keep a volume of *materia medica* open on his dressing table, so that he might study it as he performed his toilet. Such diligence was doubtless the secret of his success.

We are sometimes reproached as a body with the paucity of our scientific discoveries, and that most of these have been made by members of the still dominant school. Yet the fact is that if we are to master the *materia medica* thoroughly, there will be but little time left for research in other departments of science ; and if we do so master it, we shall probably be enabled to confer far more benefit on our fellow-men than by acquirements which, though perhaps more brilliant, may be of less practical value to humanity. This, then, ought to be one of the chief pursuits and objects of our existence, for then only shall we become fully equipped for the serious business of our calling.

What I have endeavoured, in all too halting a manner I know, to lay before you to-night may, I trust, be of some practical value in helping us, as a Society and as individuals, to hold the balance of therapeutic truth with a just hand, and with a due appreciation of all the resources at our command, to become increasingly faithful as custodians of the great truths that have been committed to our charge. And may the academic year we are now

beginning be marked by distinct progress in the art we love, and in the advancement of the system for whose defence and propagation we are here linked together in a brotherhood of conviction, of earnest purpose, and determined zeal. Let us remember, too, that for us there can be no standing still, no middle ground between advance and retreat. If we fail in the one, we shall too surely fall in the other. "Forward," then, my brothers, be our battle-cry, and, with the calm assurance of right and truth as our motive, the victory shall be ours one day.

PROBLEMS RELATING TO CHILDHOOD.

A PRESIDENTIAL ADDRESS DELIVERED BEFORE THE LIVERPOOL BRANCH OF THE BRITISH HOMŒOPATHIC SOCIETY, FOR THE SESSION 1907-1908.

BY EDMUND HUGHES, M.R.C.S., L.R.C.P.

President of the Liverpool Branch.

MR. VICE-PRESIDENT, GENTLEMEN,—I look upon my election to this chair as a mark of your kindness and goodwill; for as a younger member of this Society I cannot have expected otherwise to win a place which is more commonly conferred on age and special experience. I most heartily thank you.

In choosing a subject for a short discourse, I have been partly guided by the subject matter of past addresses from the chair, partly by my own predilections. In truth, so much has been written upon Hahnemann by his British commentators, that I can have no cause to offer you more of the same kind. And, besides, my friend and predecessor, Dr. James Watson, has traversed the ground in more than one good recent essay; so though we know this institution to be but "the lengthened shadow of one man," let us now replace the winding sheet about his venerable memory, and for a time re-inter it.

Gentlemen, within the last few years science has turned

a more steadfast gaze upon the time of childhood. I say "science," because it is in this case essentially the mental habit we denote by that word which has overborne the general inertness and stupidity. So it is that the interest now at last displayed is almost as nascent as its subject. The man of science is now apprised of new facts and new mysteries. He is disputing with healthy ferocity over his clinical material. He is hard at work along all the avenues of research. And it may soon come about that the young animal, after its first headlong irruption into this "wretched theatre," will be separated from ignorance with the same devoted care that is symbolically bestowed upon its cord, and may begin at once to reckon up its fortune with an easy mind.

When I sought to choose two problems out of the many that confront us, two clinical pictures occurred to me with equal promptitude: the picture of the wasted baby, and the picture of the severe infection. Hamlet, you remember, said to his reluctant mother, "Look here upon this picture, and on this." And hoping that you will not have to comply with this suggestion as she did—"with tristful visage, as against the doom"—I ask you to follow me in a short discussion of the subjects to which I am referring.

In the digestion of human milk by the baby's digestive organs, very recondite biochemical interactions must take place. On the nature of these, we can only throw out loose conjecture. It is improbable that we shall ever know them. We might, in groping after such a mystery, liken ourselves to the alchemists, who set themselves impossible problems. We know that the milk of a species has a specificity for the young of that species. In human milk the peculiarities of fat, proteids, carbohydrates, are familiar. They are of the A B C of a graduate's equipment. But the specificity is not due to these, but to the biochemical properties of a fluid which contains, besides the elements of a correct diet, the ingredients required to make them effectively assimilable. The known special ferments must contribute powerfully to this end. And there may exist in human whey other ferments or substances equally essential. The blood serum of

infants at the breast is more bactericidal than that of the hand-fed; and this must come about through the effect of the specific food on the body: we know that human milk contains bactericidal agents. But let us leave a fascinating subject, and, passing over both fact and conjecture, only observe that this subtle fluid can never be made in a laboratory. True, the chemistry of future ages may isolate the specific contents of human milk, the ferments and "affinities," and apply them to other milks with success. But to-day we are as pioneers in undeveloped territories; and stumbling upon likely preparations everywhere, are chiefly busied about the delimitations of boundaries, the crude marking out of cultivatable areas, as well as the cautious experimental use of what we have found. To achieve even a pioneer's measure of success, we need to know the physiology of infant dietetics, and then the whole list of artificial foods. It is instructive to note the diligence of the modern medical student in applying himself to this branch of cookery. And I am accustomed to suppose that his well-known attention to these important matters may be the reason why the self-styled "Pediatrist" is sometimes suspected of monomania—the aberration of not realising that he is a general practitioner. Lunacies, however, of this kind deserve encouragement; and if the alienist, for example, should be over forward in this derogation, he could be laid open to the same charge. The strength of his own delusion would not acquit him.

Though I am myself still at large, I do not propose, in regard to the many adaptations of cow's milk, to attempt with you a survey of the whole country. A bare list of the foods devised by specialists and manufacturers would fill my space. This list is so extensive, because there are few known principles to curb our ingenuity. Those principles we have are derived from an incomplete knowledge of physiology, and so submit themselves to be freely overstepped. Since we must argue from defective knowledge, emphasis on some one physiological datum may be at the expense of the child, on account of unknown modifying factors. The use of starch is an example. Physiology, after pointing out the absence

or paucity of amylolytic power in infants, tells us to give no starch at first, because it cannot undergo conversion. Experiments in feeding show that decoctions of unconverted or half converted cereals are indispensable for some young infants, and the inference is justly made that there are factors in operation which counterbalance in some cases this incapacity.

At every step of our reasoning on infantile dietetics, we have to consider physiological data along with empirical data. The slightness of material on the one side has led to a great accumulation of material on the other. All of these empirical data will help to construct our knowledge of the grand processes of nutrition in the young. But their immediate effect is the promotion of a great variety of foods, each one bewildering us with a fresh instance of our half knowledge. Some of these, after a temporary boom, undergo a slump, and at last come to occupy a modest place in the armamentarium of specialists alone. Some are by turns cursed and blessed, or sworn by on the one hand, forsworn on the other. The interests of the wasted infant—the infant suffering from the malnutrition always following these artificial diets—demand our consideration of the principal, the international and orthodox method of dealing with its case. This, of course, is the method by boiled or heated milk.

The heating of bodies to destroy their living content is so old an experiment, the wonder is that long before now it has not been turned to practical purpose in the matter of food. The reason why we take such pains to provide ourselves with fresh food is hard to understand. It would be the simplest operation in the world to wait till food had begun to go bad, and then to subject it to prolonged heating, after which it would be packed in sterilised pots or bottles, and called "aseptic" or "warranted not to kill." An immense saving would accrue to the national purse by this ridiculously easy process. And though there might be some who declared that their digestions after a protracted course of this diet informed them of evil, and that it even caused a serious loss of health, they could be politely informed that as the food was all "aseptic," with the Government mark on

every package, these objections were clearly out of place. They would, however, not require to be heard in the general chorus of self-congratulation.

I make this proposal because we have already carried out for our infants the same beneficent measure. Of course we did not begin to think about it until, perhaps, a continued decline in the national birth-rate, coupled with certain outside agitation, caused an outburst of pent-up popular sympathy with the newly-born ; but formerly only supplied them with the food as it had begun to go bad. For it is a political maxim of prime importance—never listen to unorganised mobs. Therefore, since the infants were unable to protest or carry amendments, it was most politic to keep on with this method so long as it was safe, and let the devil take the hindmost. The patriotic and generous impulses, however, to which reference has just been made, culminated in the formation of shops by no less than (about) eleven municipalities out of the bare total in these islands, where a well-cleansed article called “milk” is now sold to any one who has a baby, at a price which is no higher than for fresh cow’s milk. The problem is therefore solved. In order to prevent a child from dying, to maintain him as it were in a state in which he exists, it is only necessary to give him as much of this article as he deserves for the money, and then, if he should die, it is clearly the fault of Providence ; and Providence is the only power which can be abused with impunity. Wise scheme ! Admirable panacea ! To the sagacity of an alderman this problem, “How to feed the infants,” which *we* have been foolishly discussing for so many years, comes as easy as any sum in simple interest.

The British milk depôts do not need irony to discover their defects. Compared with the *consultations de nourrissons* and the *gouttes de lait* they are as the husk without the kernel. For the saving grace of the French system is not the food, but the medical supervision. The difference is somewhat analogous to the distinction between a scheme for checking the mortality from tuberculosis, whereby shops should be opened for the sale of tuberculin—TR. to any applicant who had, was said to have, or who ran the risk of getting,

consumption, and a system whereby medical experts should be appointed to treat deserving cases with this remedy in a scientific manner. Regarding depôt-milk itself, I take up the position that appears to me rational. A continued course of sterilised milk is sufficient for the rearing of many. The published experiences of Budin and Variot alone would assure us of that. But I am not arguing to the contrary. I am asserting that this method should not be criticised by comparison with obviously bad methods, but with methods which have been demonstrably successful. I contend that if our experience shows successful rearing to be possible with depôt-milk, it does not tell us that a greater degree of success would not have been gained in the same cases by other methods, pursued throughout under medical supervision; while experience shows us frequent failure with depôt-milk, and here also it may be impossible to say that the infants failed to thrive entirely through their own vice of constitution.¹

Experience further allows the argument that just as the approved school curriculum clearly fails to develop the minds and bodies of many, so our feeding system similarly fails. There is also the charge that the dépôts are one more factor in lessening the amount of breast feeding in civilised communities. My own opinion, only provisionally formed, is that the dépôts, in their small sphere of action, do have that effect.² The main objection has yet to be

¹ It is easier to collect the statistical evidence than to attempt a valuation of it. The mortality figures are in favour of the dépôts, as every one would suppose. It is more difficult to obtain evidence on the standard of development, the vexed question of rickets and scurvy, the incidence of diseases not caused by malnutrition, the after-history of the depôt-fed child. The partiality of advocates has led to the supposition that in a district showing a marked fall in the infant death-rate, the decline was due to the existence of the milk-depôt there; and where the fall is slight, to reflections on the unfortunate fewness of the dépôts and the small influence they can therefore have on the death-rate.

² Pinard asserts this to be true even of the *gouttes de lait*. McCleary in his book helplessly dismisses the problem with the remark that it is strange if they diminish breast-feeding, when their programme is like ours to encourage it. In this connection three facts may be stated regarding this city. First, that the depôt-milk is almost entirely distributed among the poor; secondly, that it is styled in the pamphlets circulated, "humanised milk"—a misleading term to the ignorant; thirdly, that the poor here are prone to wean their infants prematurely on inadequate pretexts. For this subject see also McCleary, in *Lancet*, August 18, 1906.

stated. The principle of milk heating, of which the dépôts are the official expression, distracts the general mind from the need of a clean, unaltered milk supply everywhere; just as modern charitable institutions distract the general mind from the need of a social revolution.

This matter of the milk supply claims the attention of all lovers of their kind. It has been justly said that the infant population is a nation's most valuable asset. What superlative measures we take to preserve it! Quite apart from the controversy over tuberculosis and its ways of entering the child's body, milk may become contaminated from the skin of the udders and the hide, from the hands and person of the milker, the pails, the milking-shed, the air, the place of storage, the transport, the environment and methods of the consumer, the bottle. It is safe to say that in a majority of cases all these chances are profited by. Apart from a few model farms and dairies, there are probably few sources of supply which impartial inspection would not condemn. Some time ago the management of a children's hospital in London was searching for a pure milk at a reasonable price. Its delegates were cordially invited by one of the largest dairy corporations in London to inspect the farm from which it was proposed to supply the hospital with milk. This is the description of the medical delegate :—

“ They found cows huddled together, some in ill-ventilated and dingy sheds, others in pitch-dark buildings with a foul atmosphere, all of them soiled with their own excrement and in a deplorably filthy condition, and with little, if any, bedding on the foul floors on which they stood and lay. One batch of dirty men, with dirty hands and coarse dirty aprons, was milking these cows in sheds which were plunged in Cimmerian darkness, due to an absence of light inlets. The environs of the cowsheds were a sea of filth, in which some of the more lucky animals were taking their outing and sticking there with cow-like placidity. The overflow of the milk-coolers, placed in a building adjoining a manure yard, passed through a pipe in the floor to a dirty cattle trough which was some forty yards

distant in that yard. The junction with this pipe was by an indiarubber tube with a metal screw union, which was disengaged when not in use. The open pipe in that case helped to ventilate the dirty trough into the milk-cooling department. The milk was coarsely filtered before passing over the coolers, and the filtrate was found to contain a plentiful admixture of manure and stable refuse, as was obvious must be the case when inspecting the cows, the sheds, the milkers and their milk-pails."—*Brit. Journ. Child. Dis.*, 1907, p. 218.

Regarding transport, some articles contributed this year to the *Lancet* (*Lancet*, April 27, 1907) on the railway transport of the milk supplied to London make suggestive reading. The correspondent states that probably not more than one in a thousand cans is locked or sealed, simply through carelessness:—

"The conditions in which milk is carried by passenger trains is at all times more or less insanitary, and when it is transported for long distances this evil is greatly aggravated. The luggage van in which the cans are placed is not infrequently full of miscellaneous cargo, some of which may be exactly the sort to promote the tainting of milk; the ventilation is inadequate, the temperature in hot weather will be excessive, neither floor nor walls of such a luggage van will be subjected to any special process of scouring—in short, we have here all the factors calculated to produce chemical changes in the milk. I saw at Paddington station no particular example of milk being conveyed in a van that was obviously in an unfit state, but as all the milk conveyed in these vans appeared to be in unsealed or unlocked cans, it is certain that any opportunities of soiling offered by the method of transport would have a full chance of becoming effective. I saw many cans full of milk with their lids partly opened, and of all the cans that I observed I did not see one which was sealed or locked.

"The Great Western Railway has a special platform for the unloading of milk, alongside of which come the dealers with their vans for the purpose of taking it away for distribution. On this platform I saw, regardless of the enor-

mous probabilities offered by the environments, cans freely opened and milk decanted. It is impossible to imagine a more unsuitable place for such a proceeding."

Regarding the chances of contamination in the house of the consumer, the general ignorance or carelessness of educated people of the richer class enables us to gauge the conditions likely to prevail in the houses of the poorer. Our advanced plan of school instruction, in spite of such items as algebra, the Greek language, and the history of "boobies who had fine legs," does not seem to make for efficiency in this respect. While that *regime* of grace whereby the larger section of mankind is forced from the outset to insanitary conditions, half-clothed, half-fed, half-developed—"doomed to live"—conduces neither to the knowledge nor practice of hygiene. The problem of infant feeding, indeed, like other social problems of this nature, cannot be attempted unless a fairly high standard of general comfort be presupposed.

The wasted infant! It is not my business to speak of the purely sentimental interest of its problem. But in spite of a full recognition of the limitations of the human being, his feeble potential *en masse*, those manifestations of incapacity which make the story of mankind read almost like a clinical record of maldevelopment—in spite of all this, I still regard the infant in his cradle as some bright young god—a prince entering on a rich inheritance, "heir of time," of whose resounding exploits old men already begin to prophesy—a Hercules about to strangle evil, a Sakya-muni with a crown of light, and a chorus of worshipping spirits. Who can tell how much gold we lose with the dross? From the parental side consider the tremendous addition to life's hardship by stress of mind, by impotent despair, by lasting regrets. It has been pointed out by Buckle that moral rectitude, however useful, is unprogressive. Mere emotion, however poignant, is unprofitable also. The whole aggregate of parental love has no more helped reform for its object than the instinct of self-preservation has saved us from disease. I attribute such portents as consultations de nourrissons, congresses of school hygiene, public health agita-

tion in general, almost entirely to the intellectual effect of a generation or two of scientific culture. The possession of knowledge engenders the wish to apply it. Science, which clears and enlarges the more abstract mental prospect, operates on the more practical side by exposing to view the universal folly. It is allowing us now to see that slipshod measures, half-hearted experiments of town councils, the good intentions and perilous activities of uninstructed sentimentalists, must give way to the exercise of pure reason, and to the relentless application of the principles thus gained.

The second clinical picture I propose to bring before you is that of the severe infection. A baby suffering from chronic malnutrition is not a more harrowing sight than the child whose short life is being rapidly destroyed by an infectious disease. I think every case of this kind that we see is likely to bring to our minds the very important subject of prevention *versus* evolution. This is one of the great practical problems which human society will have to decide upon when it becomes more concerned about its future preservation in an efficient state. The present degree of sociological capacity and feeling can be estimated by wading through the debates in Parliament during any session.

Few are qualified to join in the controversies on this particular subject. It is difficult, needing special and prolonged study. So that most of us can only take sides with the greatest caution, being, let us hope, with true scientific intelligence, prepared to abandon any position if a fierce artillery of facts makes it untenable by the reason. In what follows I want to view the subject as it appears to myself, and most probably to others who, like myself, are interested outsiders.

We attribute a comparatively severe infection to a comparatively low degree of natural (or acquired) immunity, or to greater power of the special virus, or to both combined. We recognise that in the past the evolution against disease has gone on almost unchecked, and that the inhabitants of different parts of the earth are already by natural selection partially immunised against those diseases to which their

conditions of life render them liable. Up to the present we owe our degree of freedom from disease to the immemorial and certain effect of natural selection. But supposing that this process were now to be abolished, there would theoretically be produced a race in each succeeding generation less and less *naturally* fitted to survive against disease, and this might be conceived to go on until the race were no more fitted to survive than it was before the process of natural selection began—no less vulnerable, for example, than the negro is to tuberculosis, or the European to malaria. Now it is exactly this state of things which present methods of dealing with the public health, if completely and universally established, would theoretically bring about. The object of these methods is to save life, to give the greatest possible amount of health to the greatest number. They are obviously prompted by the wish to promote the health and happiness of the whole community, coupled with the recognition that a good deal of the disease which has afflicted us in the past is preventable by well-applied means. But we cannot call a system of this kind philanthropic without further enquiry. It is clear that such measures, were they to be applied in the most efficient manner possible, would have to be continued *ad infinitum* in the same manner. For any laxity or discontinuance in some future generation would let in the havoc of the natural selective process in all its pristine force, just as a flaw in a vacuum chamber delivers it to the surrounding air.

Before we can subscribe whole-heartedly to the kind of measures for conserving public health which are now in force, and which have for their object the protection of the individual irrespective of his natural fitness to survive, we must seriously consider whether a system having this object furnishes a means of protection equal to the protection gained by natural selection, and whether there is reasonable prospect of the maintenance of this system for an indefinitely long period in the future.

No answer can be given to the first question till the preventive system has been adequately tried. Looking forward, we can see that methods of artificial selection—the

sterilisation of the unfit and the prevention of unsuitable marriages—would to some extent do away with the cumbersome methods of sequestration now pursued. It is not reasonable to assert that because the isolation of cases of infectious disease has had very doubtful success, or because the machinery of vaccination against small-pox is large and costly, and not perfectly applied, therefore a preventive system is bound to fail. Until medical science has developed to its full extent along these lines, until the science of public health and hygiene is completed, and until the knowledge thus gained has been fully utilised—a consummation which only a degree of intellect in the community sufficient to ensure co-operation with the system will render possible—until these things come to pass it will be necessary to withhold judgment. The second question is even more important. Indeed, it would perhaps be well if all preventive operations were to be suspended until their continuance could be assured beyond speculation. For a guarantee is needed for the abolition of warfare, and for universal and rational education, two reforms which would put an end to national hatred, class hatred, and to such social upheavals as have in the past interfered with civil organisation.

We cannot in the meantime protest too strongly against the false philanthropy, the absurd recklessness, with which thoughtless people of all kinds have flung themselves into the work of reform. Institutions founded on the non-scientific impulse, which is to preserve life, are foolishly extolled, no regard being paid to the propagation of life, a subject to which no impulse prompts. At the back of these, current religious influence, accentuating the impulse to altruism without supplying it with proper principles for its use, gives to the whole movement an official benediction which evokes sympathetic approval and opens the purse. Official and supported as this movement is largely by the kind of people who absorb current prejudices with acquiescence—and these are everywhere the most numerous—its practical form shows that here too the actuating idea has been selected in accordance with popular opinion, and in ignorance of the remoter bearings of the problem raised.

Medical men have of course an intimate connection with this great subject. Whenever we can believe that we have brought our patient through a disease from which he would have died without our help, whenever we can reasonably suppose that by amelioration or cure of a diseased subject we have prevented him from the chance of developing any derived disease, finally, whenever we apply our knowledge of etiology to the protection of susceptible people—we are deliberately subverting the operation of natural selection. Unless, therefore, we are willing that our right hand should not know what our left hand doeth, we are obliged to give at least a qualified assent to the principle of prevention. We do not profess expertness in a pursuit which demands the undivided energies of its students, but we hold with the theory of prevention which they are trying to work out, and we recognise the need of continued and continuous legislation based on their findings and counsel.

In conclusion, my object has been to render some of the problems affecting both the realised and the hypothetical child. Reviewing what I have put down, I feel the dissatisfaction all must feel who try to handle big subjects in so small a space. The weariness we derive from this mental stocktaking is only one more confession of the weakness of the human mind. At the end of the day, men of our profession are hardly to be blamed if they turn aside from questions like these, pleading their fatigues and perplexities. In the morning we were absorbed in our surroundings, and discussed with ardour every turn of circumstance. But when night comes on, and actual horizons fade away, the outlines of thought lose their distinctness. We behold these things now with oriental indifference. The question indeed whether Romulus had a strong stomach might go with those dark conjectures of Sir Thomas Browne regarding the navel of Adam, and the resurrection of his missing rib. Of the future also we know nothing, and are like the man figured by Dante, who “through desire of seeing, loseth power of sight.” And, perhaps, if we then chance to consider the strange fate of all human generations, the promise of our mortality falls upon us like a cold and paralysing shadow.

Momentous enquiries! Why, in face of the incessant demands on our time, in face of our working limit—our *quantum sufficit* indeed—of fifty years, we shall have done well if we add one touch to the unfinished picture of disease, if we can give here or there a hint of value.

These are the voices of weariness. They teach us nothing. To-morrow, in the “sovereign eye” of day, we will resume these burdens, hewing our way before us, like mountaineers who toil up lonely steeps towards the sun.

THE CURABILITY OF ACUTE TUBERCULOSIS.¹

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HAVING regard to the fact that three or four papers on the treatment of tuberculosis were presented to the Society during the last session, it may seem that I have been unfortunate in my choice of a subject for this communication; but on looking into the matter I cannot find that there has been a paper on the treatment of any of the *acute* forms of tuberculosis since Dr. Wheeler read his paper on “Tuberculosis Meningitis in Children,” [1] ten years ago. I venture, therefore, to hope that some cases illustrating the homœopathic treatment of some acute forms of tuberculosis may not be without interest, especially as these cases have to be dealt with quite differently from the more chronic types of this disease.

Before proceeding further it will be well to define more clearly the class of cases with which I propose to deal in this paper. Under the term “Acute Tuberculosis” I include all cases of tuberculosis which run an acute course, whether generalised or localised; and which are characterised by the formation of grey miliary tubercles with inflammatory changes in the parts affected, but without marked caseation or fibroid change.

¹ Presented to the Section of Materia Medica and Therapeutics, November 7, 1907.

In speaking of the curability of such cases I fully recognise that in a certain number of them spontaneous cure takes place, and this fact must be allowed for in estimating the value of any therapeutic measures applied to them.

I regret that the following case reports are in many particulars incomplete; but they all deal with cases visited at their homes in the course of private practice, and I have no doubt most of you have experienced the difficulty of keeping full notes of cases under these circumstances.

Another point I should like to refer to is the difficulty of being perfectly sure as to the diagnosis in the cases that recover. This difficulty is in most cases inevitable, because a certain diagnosis is very rarely possible in the early stage of acute tuberculous conditions, but on the other hand it is only the cases treated in this early stage that recover. However, it is my conviction that all the cases recorded below were tuberculous; and it is difficult to define on paper all the factors that guide one in making a diagnosis clinically.

Case 1.—Acute General Tuberculosis following Measles.

K. G., girl, aged 5½, was first seen on May 8, 1900; she was suffering from what proved to be the initial symptoms of a severe attack of measles (medicines during attack, acon., dros. and puls.). After a few days partial defervescence occurred, but there was a troublesome hacking cough and more than an ordinary degree of prostration. Medicines given, acon. 2x and phos. 6x. A fortnight after the beginning of the attack there was still a moderate pyrexia of a remittent type: the cough was troublesome and rather looser, and at the apex of the right lung there was slight impairment of resonance, and here, and in one or two other points in the chest, there were fine crepitations; there were also night sweats and marked emaciation. At this stage ars. iod. 3x was given, and was continued for a fortnight. About three weeks from the onset sharp pain in the left axillary region was complained of, worse on inspiration or coughing; on examination, pleuritic friction was detected. On account of this, bry. 2x was given her a few days alternately with the ars. iod. About the same time the little patient complained of occasional severe abdominal pain, and the abdomen was slightly distended and the bowels very constipated. At the end of the fourth week

she began to complain a good deal of headache, and she vomited occasionally; at this stage apomorphia 6x was given every two hours, and calc. carb. 30 t.d.s. In a few days the headache became so severe that the child often gave a sharp scream on account of it, and she became extremely irritable in disposition and intolerant of light and noise. At the same time the vomiting became much more frequent, and not even peptonised milk was retained; the bowels were not opened for about a week, and the vomiting became faecal in character and the abdominal distension increased. Verat. alb. 2x was now given instead of apomorphia, and the calc. carb. was continued; at this time the only nourishment which could be retained was panto-pepton with crushed ice. Up to this time a moderate, irregular pyrexia continued, the emaciation increased, and the child's condition appeared almost hopeless. After this the severity of the vomiting began to abate, the bowels began to act occasionally, and the abdominal distension diminished, but the cerebral symptoms continued to cause anxiety. The severe headache continued, and sometimes the child was drowsy and sometimes delirious; there was distinct rigidity of the muscles at the nape of the neck, but no actual retraction of the head. Unfortunately, I did not at the time make any note as to the condition of the eyes, but so far as I remember there was no squint or marked inequality of the pupils, and ophthalmoscopic examination showed only some engorgement of the retinal veins. At this stage bellad. 2x was given every two hours, the calc. carb. was continued, and the hair was cut short and iodoform ointment was rubbed into the scalp twice a day. By the end of the sixth week of the illness the cerebral symptoms had passed away; and in a short time the cough and the abnormal signs in the chest cleared up and the child began to put on flesh and gain strength. The calc. carb. was given alone during the period of convalescence, and was not discontinued until three months after it was first given; by this time the child's health had been completely restored, and seemed to be quite as good as before this illness occurred.

Professor Osler [2] says: "Of the sequelæ of measles, tuberculosis is the most important—either an involvement of the bronchial glands, a miliary tuberculosis, or a tuberculous broncho-pneumonia"; and it appears to me that in the case related above there can be little doubt that a general miliary tuberculosis developed, involving first the lungs and pleura, and then almost simultaneously the peritoneum and the meninges. This supposition would satisfactorily account for all the symptoms

of the case better than any other diagnosis which has yet occurred to me, and it is perhaps slightly confirmed by the fact that a paternal aunt of the patient died of phthisis at the age of 30 after an illness of three months' duration.

It may be noted that at one period in the course of the case there was a condition of things resembling intestinal obstruction; namely, obstinate constipation with abdominal distension and faecal vomiting; but viewing the case as a whole it seemed probable that these symptoms were due to a parietic condition of the intestines connected with the symptoms of meningeal irritation, and probably increased by the presence of some degree of tuberculous peritonitis. Barlow [3] has described two cases of this kind where obstinate constipation with vomiting and slight visible peristalsis raised a suspicion of intestinal obstruction, and the proposal of laparotomy was for a short time entertained; but in both patients the condition turned out to be due to tuberculous meningitis.

Case 2.—Early Tuberculous Meningitis.

G. W., boy, aged 8, was one of twins, and has always been delicate. Has occasionally had convulsions since he was 3 years old. Two maternal aunts died of phthisis.

I was first called in to see him on September 30, 1904. During the month previous to this he had been losing flesh very noticeably; for a few days he had been complaining of headache, and had vomited two or three times. A few hours before I saw him he had had a convulsion lasting a minute or two. When I saw him he was conscious and complaining of severe headache, and could not bear any light or noise; there was considerable fever, but I did not keep any record of it. Bell. 2x every two hours and calc. c. 30 m. et n. were ordered. After this his condition grew worse for some days; he continued feverish, and was very constipated. He was at first delirious, but afterwards became very drowsy, and for two or three days did not take any notice of anyone. There was a good deal of muscular twitching in the face and extremities, and he kept rolling his eyes. On examining with the ophthalmoscope there was very marked engorgement and tortuosity of the retinal veins, and a suspicion of slight swelling of the optic discs.

On October 6 iodoform 6x was given instead of bellad., and the calcaria was continued. About a week after he was first seen he began to improve; he became clearer mentally, the headache lessened in severity, and the fever diminished; and this improve-

ment went on steadily until November 8, when he was practically well and I paid my last visit. On examining his eyes again the retinal vessels had returned to their normal condition. On October 18 the iodoform 6x was discontinued, and for the remainder of the time he took calc. carb. 30 twice a day, and one dose of tuberc. Koch 30, once a week.

I saw this boy quite recently, and he is in good health and gets on very well at school.

In this case the rapid loss of flesh, followed by acute cerebral symptoms and fever, render it highly probable that the diagnosis of tuberculous meningitis was correct.

Case 3.—Probably Early Tuberculous Meningitis.

N. M., boy, aged 5; always precocious and excitable. A maternal aunt died of phthisis. During February, 1906, he was under treatment for an attack of diphtheria of moderate severity, which rapidly subsided under treatment with antitoxin and homœopathic remedies, but he was rather slow in regaining his strength. On April 18, 1906, he was taken with extremely severe pains in the head, with drowsiness and nausea. His temperature was about 101°. For two days and nights after this he was delirious, and kept calling out on account of imaginary disasters to his favourite toy horse; he could not bear to have much light in the room, and was very sensitive to noise, so that the knocker and the garden gate had to be padded to make them as silent as possible. For some days he continued to complain much of pain in his head; the temperature continued moderately but irregularly elevated, and the bowels were very constipated. Most of the time the pupils were very contracted and sometimes slightly unequal in size. There was marked and rapid loss of flesh. At this time I felt very much afraid that tuberculous meningitis was commencing. For the first two days acon. 2x and bell. 2x were given alternately, but after that hyos. 2x was given every two hours, and calc. carb. 30 morning and evening, and these medicines were continued for nearly a fortnight. By this time the alarming cerebral symptoms had subsided, but the little patient continued weak and thin, so iodine 3 was given instead of the hyos., and the calc. carb. was continued. A few days later the iodine was discontinued, and the calcarea was taken alone for three or four weeks longer. For some weeks he remained very weak in his legs and hardly gained in weight at all; but eventually, after a change to Weston-super-Mare, he became quite well and strong again.

On August 1 of this year I was asked to see him again. He had been keeping very well until a week or two previously, but had suddenly lost his appetite and was getting very thin again; the thinness of his neck was especially noticeable, and there were dark rings round his eyes.

During the previous week or two it had also been remarked that he had been abnormally witty in his conversation for a small child, and at the same time he was irritable and cried much more frequently than usual. There had also been occasional attacks of severe headache, one or two of which had been accompanied by vomiting, which was unusually sudden and unexpected. Another marked symptom was sleeplessness. Calc. carb. 30, three times a day, and tuberculinum 30, once a week, were prescribed; also Scott's emulsion after meals. At the end of a fortnight he was eating and sleeping better, and the headaches and vomiting had ceased, and he has since been improving steadily and gaining in weight. No change has been made in the medicines.

It cannot be said that in this case there was more than a suspicion of the onset of tuberculous meningitis, but at one time there seemed very good ground for fearing that this was about to develop. The recurrence of the wasting and of cerebral symptoms of a milder type, eighteen months after the first attack, appear to indicate a constitutional weakness tending to the development of some tuberculous condition.

Case 4.—Prodromal Symptoms of Tuberculosis Meningitis.

F. B., girl, aged 3. First seen on April 13, 1904. Maternal grandfather died of phthisis. Was always a plump, healthy child until the last few weeks, but lately has often complained of feeling tired and has been losing flesh. Rather more than a week ago she was taken with what her parents regarded as an ordinary cold; she was feverish, listless and drowsy, and in a few days became so weak that she could not walk. An hour or two before I saw her, her lips, hands, and feet became blue and cold, and her parents thought she was dying. When I saw her she had revived somewhat, but her pulse was small, rapid and irregular, and there was a slight rise of temperature. Nothing abnormal was found on examination of the chest and abdomen. For two or three weeks she remained very listless, weak and thin. She vomited two or three times. At first she was constipated, but later the stools were loose and offensive. She had a great aversion to all food. At first there was a dry cough, and there

were several night sweats. She was very slow in regaining strength, but eventually became quite plump again, and my last visit was paid on May 28.

The medicines used in this case were calc. c. 30, calc. carb. 200 (two single doses), ars. iod. 3x, tuberc. Koch 30, psor. 30, and sulph. 6, besides various intercurrent remedies for a few days at a time.

In March, 1907, this little girl again became very thin, had dark rings round her eyes, had no appetite, and became listless and tired. There was a yellowish pallor of the skin, which gave her a decidedly cachectic appearance. Calc. c. 30 three times a day was again ordered; also Scott's emulsion, and in a few weeks she seemed quite well again.

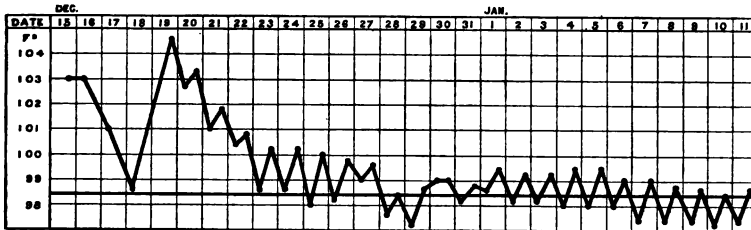
In this case there was no evidence of an actual development of tuberculous meningitis, but the symptoms exactly resembled those which one has seen in other cases precede the development of this disease. They were probably due to a comparatively limited outbreak of miliary tubercle, nowhere causing lesions of sufficient magnitude to be capable of recognition. The recurrence of some of these symptoms three years later would rather confirm this view of the case.

*Case 5.—Tuberculous Peritonitis, probably secondary to
Tuberculous Salpingitis.*

Mrs. C., aged 32. First consulted me on November 27, 1906. Her chief complaint was that the last two monthly periods had been attended by much greater loss of blood than she was accustomed to, for whereas the flow was usually scanty and only lasted three or four days, on these two occasions it had continued profusely for about six days. Moreover, the last period was preceded for about a week by very severe cramp-like pains in the hypogastrium and groins, which ceased when the flow began. She had been losing flesh slightly for three months, and since the last period had continued extremely languid and weak. On examination nothing definitely abnormal was found, and I attributed the symptoms to pelvic congestion without being able to assign a cause for this. Hamam. 2x t.d.s. was prescribed.

On December 15 (*i.e.*, nearly three weeks later), I was sent for to go and see her. For about twenty-four hours she had been very feverish, had been suffering from headache, and had been slightly delirious. When I saw her she was very flushed, and her temperature was 103. The monthly period had come on the day before at its proper time, and the flow was not excessive, but was

decidedly offensive. Influenza being very prevalent at the time, the symptoms were provisionally attributed to this source. Bell. 2x, and afterwards bapt. and china 1x, were prescribed, and in three days the temperature was 98.6° and all the symptoms were better; but on the following night the menstrual flow increased to a flooding and a rather large clot was passed, but was not preserved for inspection. The day after this the temperature ran up to 104.6° , and the patient felt very weak and ill. At this stage suspicion was aroused as to whether there might have been an early abortion followed by uterine sepsis; but there had been no indications of pregnancy, nor any interference to account for the sepsis. On examination the uterus was found slightly fixed and anteflexed, and there was some indefinite resistance and tenderness surrounding it, but chiefly on the right posterior aspect. The external os was tightly closed, and at this time the discharge was small in quantity, nearly black, and no longer offensive. Acon. 2x every two hours was



CASE 5.—Mrs. C., Tuberculous Peritonitis.

given, and hot vaginal douches of solution of permanganate of potash were ordered. During the next two or three days the temperature gradually fell and the discharge ceased, but the abdomen began to swell and was slightly tender. During this period bell. 2x and merc. cor. 4x were given every two hours alternately.

By December 24 the abdominal enlargement was very marked and there were signs of a quantity of free fluid in the abdominal cavity, but the patient seemed better in herself, and the pyrexia became quite moderate and of an intermittent type. At this stage there were night sweats and marked emaciation. The case now appeared to be one of acute peritoneal tuberculosis, and fresh treatment was instituted accordingly; calc. carb. 6 was given morning and evening, and iod. 3x t.d.s. Instructions were also given to paint the abdomen twice daily with 6 per cent. vasogen

iodine. These remedies were continued for over five weeks without change, except that after January 5 tuberc. Koch 30 was also given once a week. During this time the abdominal swelling gradually subsided, the temperature showed a steadily diminishing evening rise, and the patient put on flesh and strength. On February 22 she was able to go away for a change.

Quite recently I called upon this patient and found that she had continued well since and was able to attend to her usual duties.

In the early stages of this case the diagnosis was difficult, but in the light of the subsequent course of events it appears highly probable that the early symptoms were due to a primary tuberculous salpingitis, and that this infected the peritoneum and set up an acute miliary tuberculosis of that membrane. Referring to tuberculosis of the peritoneum, Osler [4] says:—"In women the disease extends commonly from the Fallopian tubes. In at least 30 or 40 per cent. of the instances of laparotomy in this affection reported by gynecologists, the infection was from them." Bland-Sutton, and Giles [5] also say:—"It is an important clinical fact that tuberculous peritonitis in infants, girls, and young women, in many instances is due to infection from tuberculous tubes in consequence of the cœlomic ostia remaining unoccluded."

The fact that the peritoneal involvement appeared to coincide with a menstrual period is of some interest: that it should have been so is possibly partly due to the active congestion occurring in the tubes at such a time, but another important factor in determining such an occurrence is the fact that in the tuberculous female the tuberculo-opsonic index falls during menstruation, thus indicating a condition favourable to dissemination of the infection.

Case 6.—Tuberculous Peritonitis and Pleurisy.

Miss H. W., aged 17, first came under treatment on July 29, 1904. As regards family history, it may be noted that a paternal aunt and also a maternal aunt and other relations have died of phthisis. For years the patient had been liable to suffer from diarrhœa unless very careful with her diet. About three weeks before I saw her she tripped and fell forward whilst playing some out-of-door game; she felt at the time that she had received some hurt in the umbilical region, as she fell somewhat forcibly on her stomach. For a few days after this there was constant discomfort as if the band of her skirt was too tight, and

in a week or two there was distinct swelling of the abdomen and much severe abdominal pain.

When I first saw her there was great abdominal enlargement, with a general doughy feeling and with areas of dulness on percussion, the largest occupying the greater part of the left inferior quadrant of the abdomen. There did not seem to be any free fluid nor any solid masses. The chief symptoms were abdominal pain, shortness of breath, marked wasting, night sweats, and a moderate degree of fever. There was no evidence of any involvement of the lungs. The medicines ordered were calc. carb. 6 morning and evening, and iodine 3x three times a day; it was also directed that the abdomen should be painted twice daily with vasogen iodine 6 per cent. The patient remarked that after the first application of the vasogen iodine she had no more severe abdominal pain. The same medicines were continued for nearly a month, and after about the first week the abdominal swelling began to diminish, and the general condition improved. On August 23 ars. iod. 3x three times daily was ordered, and tuberc. Koch 30 once a week. These medicines were continued until my last visit on October 20, when the patient's recovery was complete; there was no abdominal enlargement or tenderness, and she had put on flesh and was able to go out for walks. The catamenia were absent during the attack.

She continued apparently quite well until the end of July of the following year, when she hurt herself in reaching up high to take down a book from a shelf; whilst doing this she felt as if something snapped and caused a sharp pain in the left hypochondriac region. After this there was a feeling of a great weight in the upper part of the abdomen, which soon began to swell, and she very easily got out of breath.

When I saw her on August 2, 1905, her general condition was very much like it was at the beginning of the previous attack, but the condition found on examination was rather different; for this time the greatest enlargement of the abdomen was above the level of the umbilicus, and the lower part of the thorax was expanded so as to give the trunk a most peculiar shape, somewhat like a barrel, having its largest diameter in the middle where the waist ought to have been. The upper part of the abdomen was resistant on palpation and rather tender, and the percussion note was impaired. In connection with the enlargement of the lower part of the thorax, it is of importance that there was dulness at both bases, reaching nearly to the level of the nipple, and absence of breath sounds over the same area, probably due to effusion in

both pleuræ. The temperature was slightly raised. The medicines ordered were ars. iod. 3x three times a day, and tuberc. 30 once a week ; also vasogen iodine was applied externally as before.

Manifest improvement soon set in, and in ten weeks all symptoms and signs of disease had vanished. The same medicines were continued throughout the case.

I saw this patient recently, and she has continued in excellent health since the second attack.

I take it that this patient had two distinct attacks of acute tuberculous peritonitis, and that on the second occasion this was associated with bilateral tuberculous pleurisy, thus furnishing an example of general serous membrane tuberculosis or "polyorrhomenitis."

Case 7.—Tuberculous Peritonitis resembling Appendicitis.

Master R., aged 16, first came under my observation on February 20, 1906.

The history was that for about ten days he had been acutely ill with some inflammatory condition in the abdomen ; and that as they lived some four miles from the nearest homœopathic practitioner his parents had called in an allopathic practitioner who lived close at hand.

This gentleman, having attended the lad for about a week, told his parents that it was a case of appendicitis with inflammation of the bowels, and that an immediate operation was necessary if his life was to be saved. On hearing this they determined that homœopathy should have a trial first, if possible.

When I first saw the patient, he complained chiefly of severe abdominal pain and occasional vomiting. His temperature was 103°, and his pulse about 116. There was general tenderness and rigidity of the abdomen, but not much distension. There was some ill-defined resistance and dullness in the right iliac region, and also a transverse band of dullness and resistance at about the level of the umbilicus, and about three inches in width. This transverse band led me to suspect that the case might be one of acute tuberculous peritonitis, as it is a rather frequent result of tuberculous involvement of the omentum. Another point in favour of this view of the case was that the boy's general condition did not seem as bad as one would have expected in a case of spreading suppurative peritonitis. Further confirmation was furnished when enquiry elicited the fact that for some weeks previous to this acute illness he had been losing flesh and feeling very tired, and had had one or two night sweats.

Having taken this view of the case I told his parents that I did not consider an immediate operation necessary, and I commenced treatment with bell. 2x and merc. cor. 4x every hour alternately, and hot fomentations to the abdomen. Three days later, on February 23, the medicines were changed to ars. iod. 3x every four hours, and calc. c. 30 morning and evening. Improvement took place very rapidly; in three or four days the temperature had fallen to nearly normal; in about ten days the abdominal pain and tenderness were practically gone, and in less than three weeks from my first visit he was able to get up and go downstairs. With the exception that bry. 2x was given instead of the ars. iod. for three days, the calcarea and ars. iod. were continued till the boy was well.

This case illustrates the difficulty that sometimes exists in differentiating between acute tuberculous peritonitis without effusion and appendicitis. It is important to make the distinction, because, so far as I have observed, these cases are apt to do badly if operated upon. In this respect they differ from those cases of tuberculous peritonitis where there is abundant serous effusion.

Case 8.—Tuberculous Peritonitis.

Miss W. T., aged 17, was first seen by me on April 14, 1901. Two or three weeks previously she had got very wet and sat in her damp clothes for two or three hours.

Since then she had been feverish, had suffered from pains in the abdomen, and there had been steadily increasing enlargement of the abdomen. The abdomen was found much enlarged, with evidence of some free fluid and one or two areas of localised resistance on palpation. Other parts of the body were emaciated. Irregular pyrexia continued for about a month. The medicines given were : April 14, iod. 3x t.d.s. and calc. c. 6 m. et n. May 1, rep. iod. and vasogen iodine 6 per cent. externally twice a day.

June 8, iod. 3x t.d.s., quin. sul. 3x m. et n.

June 19, sulph. 6x t.d.s. Under these remedies a most satisfactory recovery took place.

This patient remained in good health for over four years and then developed pulmonary phthisis after taking a severe cold. Four months at a sanatorium produced great temporary improvement, but her home environment was most unfavourable, and a fatal result ensued a few weeks ago.

REMARKS ON PULMONARY CASES.

Cases in which an acute disseminated development of tuberculosis occurs in the thorax present certain distinct differences as compared with analogous cases in which the cranium or the abdomen are the seat of the disease. One important difference is that tuberculous infection of the meninges or peritoneum has distinctive clinical features by which it may usually be distinguished with ease from a non-tuberculous infection of the same structures, but within the thorax acute tuberculous developments run much the same clinical course as the corresponding non-tuberculous infections; for instance, it is seldom that it is at all difficult to decide whether a meningitis is tuberculous or non-tuberculous, and it is only rarely that there is difficulty in deciding whether a peritonitis is tuberculous or not, because in these cases the tuberculous infection usually follows a clinical course quite different from the non-tuberculous one. But it is quite otherwise with an acute tuberculous invasion of the pleura or lung; it is rarely possible clinically to say whether an acute pleurisy is tuberculous or not; and an acute tuberculosis limited to the lungs may exactly simulate a non-tuberculous lobar or broncho-pneumonia, or capillary bronchitis, or may be unattended by any physical signs indicating a pulmonary lesion. The consequence is that these cases of acute tuberculosis in the chest are comparatively seldom diagnosed, or diagnosable, during life, or if they are, it is at too late a stage in the case to give special treatment for such a condition a fair chance.

Whilst it is thus clear that many of these cases die undiagnosed, it is also probably true that a certain number recover undiagnosed. This, of course, is undoubted in the case of acute tuberculous pleurisies, but it is also probably true of many cases of broncho-pneumonia in children following measles or whooping cough, for, as Osler says, [6] "The profession is gradually recognising the fact that a majority of all such cases are tuberculous," and it is certainly not the case that a majority of them die. The same arguments apply to tuberculous pericarditis; I re-

member seeing the case of a child which during life was diagnosed as rheumatic pericarditis, but which proved *post-mortem* to be tuberculous.

It is, therefore, impossible to say much at present about the curability of acute tuberculosis when it is confined to the intrathoracic viscera, as these cases usually either recover or die without their tuberculous nature having been recognised, and therefore without any treatment specifically related to tuberculosis having been employed.

Probably in the future a larger number of these cases will be diagnosed at an early stage if they are looked out for and if improved diagnostic methods are brought to bear upon them, such as estimation of the opsonins, cyto-diagnosis, enumeration of the leucocytes, &c.

In connection with these remarks it may not be out of place to give a very brief account of three cases of acute pulmonary tuberculosis, which will illustrate the difficulty of arriving at a correct diagnosis in this class of case.

Case 9.—This was a woman, aged 45, who was admitted to the London Homœopathic Hospital during my term of office as house-physician. She was suffering from cough, rapid breathing and high fever, and there were signs of consolidation of the lower lobe of the left lung. There was nothing in the history of the case or in the physical signs to throw any doubt on the diagnosis of lobar pneumonia which was made.

The case was attended by very marked prostration, and this increased and the patient died about ten days after admission. At the autopsy the greater part of the lower lobe of the left lung was found consolidated, and on section showed that it was full of yellow, or caseating, and grey tubercles, but there was no breaking down or cavity-formation. I scraped the cut surface of the lung, and made a cover-glass preparation of the fluid thus obtained, and found that it contained countless tubercle bacilli. This was therefore an example of that rare condition, the *lobar* form of acute caseous tuberculosis of the lung. The *broncho-pneumonic* form is far more common.

Case 10.—A gentleman, aged 45, who previously appeared to be in excellent health, was taken ill somewhat suddenly with high fever, prostration and profuse sweating, and a provisional diagnosis of influenza was made, as it was somewhat prevalent at the time, and no other explanation of the symptoms was at the time

apparent. During this attack there was also pain in the right side of the chest and pleuritic friction, but no effusion. After two or three weeks the patient was convalescent and able to get out; but it seems that he did a good deal more than was wise, and a week or two later a relapse occurred. The temperature rose to about 102° , the pulse was 124; there was some shortness of breath on exertion, and a soft systolic murmur could be heard at the apex of the heart. For four weeks the temperature continued high, with considerable daily fluctuation; there was *profuse sweating*, pulse 120 to 130, *no cough*, and *no dyspnoea* when at rest; abundance of nourishment was taken, and *no loss of flesh* took place.

There was no definite loss of resonance over any part of the lungs; but there were one or two places where expiration was prolonged, and a few crepitations were sometimes heard at the bases of the lungs posteriorly. The leucocytes were 10,000 per cubic millimetre. Bacteriological examination of the blood gave a negative result. The case was looked upon as being probably one of malignant endocarditis. The possibility of acute tuberculosis was considered, but the absence of cough, dyspnoea, cyanosis, and emaciation, together with the presence of a mitral murmur, tachycardia, and breathlessness on exertion, seemed to render it far more probable that the seat of the trouble was cardiac rather than pulmonary. Death occurred four weeks after the beginning of the relapse: during the last two or three days cyanosis and dyspnoea during rest were present. At the autopsy the heart was normal, except that the myocardium was somewhat pale and soft; but both lungs were full of grey miliary tubercles, especially the lower lobes. The intestines and peritoneum were normal. The subcutaneous fat was above the average in thickness.

It does not seem unreasonable to say that in this case a diagnosis of acute pulmonary tuberculosis would not have been warranted by the evidence available during life.

Case 11.—A lady, aged 53, was taken ill with shivering, temperature of 102° , pain in left axillary region and cough. In a few days the signs were those of lobar pneumonia of the lower lobe of the left lung. At the end of ten days no crisis had occurred, but the temperature had fallen gradually and was normal for two mornings, but about 100° in the evening; then the temperature became higher again, and signs developed of a fresh area of pneumonia above the original one. At the end of another week there were again signs of some improvement, but this was followed by the occurrence of sharp pleuritic pain on the *right* side

of the chest, increased intermittent pyrexia, and in a day or two signs of consolidation at the base of the *right* lung. During all this time there was a progressive loss of flesh and strength, but no sweating. These symptoms, together with the progressive character of the lung affection, led me to take the view that the case was one of acute pulmonary tuberculosis, or acute pneumonic phthisis; it was also rendered more probable by the fact that two or three years previously the patient had had an operation on the left loin, on account of a cold abscess supposed to be due to tuberculous abdominal lymphatic glands. Death occurred after four and a-half weeks' illness. The leucocytes were counted twice, and were found to be 13,000 per cubic mm. the first time, and 14,600 per cubic mm. the second. No *post-mortem* examination was made.

In this case it was not until the third week of the illness that it was possible to recognise that the case was one of acute tuberculosis.

DIAGNOSIS.

An early diagnosis is of vital importance in acute tuberculous infections, because if the disease is not checked at an early stage the defensive processes of nature become exhausted, and then no response to treatment can be expected.

In order to make an early diagnosis it is important to make careful enquiry as to the patient's previous health from early infancy, because there is always the possibility that the acute condition which we are called upon to treat is only an acute outbreak of a chronic or latent condition of long duration, and the previous history of the case will often give a clue as to this.

Acute tubercular conditions are practically always examples of such an occurrence, and by attention to this point we may often avoid the error of regarding them as non-tubercular and being thus led astray as regards prognosis and treatment. It is also advisable to enquire as to hereditary tendencies, and as to the possibility of exposure to infection, as, for example, by the consumption of unboiled milk, or by living with a phthisical relative or nurse.

It is highly suggestive of tuberculosis if, prior to the acute illness, the patient has been ailing for some weeks,

with increasing lassitude, pallor, and loss of flesh, and especially if these symptoms have been accompanied by slight evening rise of temperature and, perhaps, night sweats. If we can exclude suppuration (*e.g.*, empyema, or otitis) and, in young children, chronic gastro-intestinal disorder, the above symptoms will nearly always indicate tuberculosis. Of course, in many cases there will be a history of some recognised tuberculous affection of a joint, or of lymphatic glands, &c.

It would require a separate paper to go into detail as to the differential diagnosis of the various conditions which come under the designation of acute tuberculosis, and it would not serve my present purpose to do so, because by the time a case has reached a point at which it can be recognised as unquestionably tuberculous, it is generally too advanced for successful treatment; whereas what I am pleading for is that these cases should be diagnosed, at least provisionally, before they reach this point. The foregoing remarks do not apply in the same degree to tuberculous peritonitis as to other acute tuberculous conditions, because the former is usually much more amenable to treatment.

The following laboratory methods will in some cases help in making an early diagnosis, but unfortunately the diagnostic rules based upon them have many exceptions which somewhat detract from their value.

(1) *Estimation of Leucocytes*.—A moderate leucocytosis of 10,000 to 15,000 is found in most acute tuberculous conditions, but in many cases there is no increase. A very high count would suggest some non-tubercular infection, and an abnormally low count might indicate enteric fever.

(2) *Determination of Opsonic Index*.—A high and fluctuating index is strongly in favour of an acute tuberculous condition; a low index is of less value.

(3) *Agglutination Test*.—The agglutinating power of the serum on tubercle and typhoid bacilli respectively will throw light on the possible presence of either of these infections.

(4) *Cyto-diagnosis*.—In tuberculous serous effusions the contained cells are almost entirely lymphocytes, whereas in

other acute inflammatory fluids polymorphonuclear leucocytes predominate.

TREATMENT.

If the consideration of the patient's previous health and constitutional tendencies is important with regard to *diagnosis*, still more is it necessary in relation to treatment. For there is abundant testimony to the fact that if remedies are selected solely on the ground of their similarity to the most prominent symptoms of the acute attack success is conspicuous by its absence; but on the other hand there is equally good evidence that where remedies are selected appropriate to the patient's pre-existing constitutional state recovery will frequently take place.

Taking tuberculous meningitis as a type of these acute tuberculous conditions, it will be well to bring forward some evidence in support of this assertion.

In the first place there is the testimony of Jahr, quoted from his "Forty Years' Practice" by Dr. Hughes in the discussion on Dr. Wheeler's paper already referred to [1]. The quotation was as follows:—

"For some time past I have abandoned all these" (the ordinary remedies) "and have treated every case with calcarea 30, and have had much better results than ever before, and can report several unquestionable cures."

Then Dr. Hughes related his own experience, which was that in the earlier years of his practice, when he was using the usually accredited remedies, he had no success in dealing with tuberculous meningitis, but that from the time when he came across Jahr's experience with calcarea 30, he had always administered that remedy whenever suspicious symptoms occurred in children, and had never had a death from tuberculous meningitis.

Similar testimony was also borne by Dr. Madden and Dr. Dyce Brown with regard to the efficacy of calcarea in high dilution.

Further, we have Burnett's [7] experience with bacillinum, or tuberculinum (Heath); by means of a single dose of this remedy in a high potency two cases of apparently early

tuberculous meningitis were cured, after the usual homœopathic remedies had failed to arrest the disease. It may also be noted that in each of the cases of recovery recorded above, either calc. or tuberc., or both, were given for a long period.

I should like here to raise the question for discussion as to whether there is any possibility of discriminating between calcarea and tuberculinum as regards their suitability to individual cases.

Probably other constitutional remedies may be indicated in special cases: *e.g.*, sulphur, if there was a history of the suppression of a skin eruption.

It seems to be generally agreed by those who have had most experience of the modern vaccine treatment with tuberculin, that in the acute forms of tuberculosis such as are contemplated in this paper injections of tuberculin are contraindicated, unless perhaps in some of the subacute cases of peritonitis. This conclusion seems to have been anticipated by Burnett when he wrote seventeen years ago: [8] "Theoretically, the stage at which the virus ceases to be of any use is, I think, where the disease has become aggressively infective in quantity, or bulk, *and where homœopathicity merges into identity*. . . . If it is to cure, it must act before the bacilli are numerous enough to get the mastery. Hence, also, it is not the chronicity, or the age of the consumption, which determines our point, but *the degree of intensity*."

Here let me suggest that it would be desirable to give more trial than hitherto to the nosodes of bovine and avian tuberculosis, especially the former.

Having insisted on the paramount importance of constitutional treatment, it only remains to add that it may be advantageous to give, intercurrently with the constitutional remedy, any remedy which may be indicated by the leading symptoms of the case, and in this connection I must be content with suggesting that special attention should be given to iodoform in meningeal cases, phosphorus in pulmonary cases, and iodine and arsenicum iodide in peritoneal cases.

Having already made unreasonable demands on your patience, I will now conclude with a summary of the chief practical points to which I have sought to draw attention in writing this paper :—

(1) That there are a good many more cases of acute disease which are tuberculous in origin than is often recognised.

(2) That if these cases are diagnosed early and treated homœopathically, probably many would recover which would not otherwise do so.

(3) That in treating cases of acute tuberculosis it is of vital importance to use remedies which may be expected to modify the constitutional state which underlies the local manifestations; as, for example, calcarea and tuberculinum.

(4) That it would be well to consider the possibility of tuberculosis in any acute disease where the case does not respond to treatment which seems well indicated, and to give anti-tuberculous remedies, unless some other constitutional dyscrasia seems more probable.

REFERENCES.

- [1] *Journ. Brit. Homœop. Soc.*, 1897, p. 299.
- [2] OSLER. "Principles and Practice of Medicine." 5th Ed., p. 88.
- [3] "Allbutt's System of Medicine." 1st Ed., vol. vii. Art., "Tuberculous Meningitis."
- [4] OSLER. *Op. cit.*, p. 286.
- [5] BLAND-SUTTON AND GILES. "Diseases of Women." 5th Ed., p. 271.
- [6] OSLER. *Op. cit.*, p. 293.
- [7] BURNETT. "New Cure of Consumption," p. 13.
- [8] *Op. cit.*, p. 104.

The PRESIDENT, after thanking Dr. Bodman on behalf of the Society for his excellent and instructive paper, thought it illustrated, as the author had pointed out, that the early diagnosis of the tuberculous condition was of the greatest possible importance. It also illustrated how difficult it often was to arrive at a definite conclusion. The means by which such a conclusion might be arrived at, namely, by estimating the leucocytosis and so forth, were of great value. Another point which seemed to him to be well illustrated was that the remedies to which they had been for so long accustomed to attach value had been proved to be reliable.

All homœopaths had been accustomed to rely upon their old friend calcarea as a constitutional remedy in tuberculous conditions, and continued to do so. There was a good foundation for that confidence, namely, the clinical experience of their everyday practice; and if Hahnemann had given them nothing but calcarea carbonica in high dilution, he would certainly have conferred a benefit for which they could never be sufficiently thankful. He thought the author answered his own question as to the differentiation between such remedies as tuberculin and those which might be indicated symptomologically. He (Dr. Spiers Alexander) had always looked upon tuberculin as being a kind of basic medicine, as meeting the tuberculous condition in a general way; but in addition to that, remedies were required which would meet the symptoms of the individual case. While being thankful for a constitutional remedy such as tuberculin to suit the general condition, the fact ought never to be lost sight of that, after all, it was the symptomatology which guided the practitioner to the indicated remedy. He desired to confirm the author's statement as to the value of laparotomy in cases of peritoneal tuberculosis in which there was a great deal of effusion. A few years ago he had an instance of that in private practice, in conjunction with Mr. Knox-Shaw, in which the patient, a boy aged 17, had had several acute attacks, one of which had been attributed to appendicitis. The conclusion was arrived at that it might possibly be tuberculosis. Laparotomy was performed, which confirmed the diagnosis, with the result that the boy made an excellent recovery and was now in perfect health.

Dr. ROBERSON DAY thought that many cases, even the severe ones, of tubercular meningitis were curable. He had now attending at his clinic a patient who had been cured of the trouble, but the mischief had wrought such havoc with the brain that, although the life had been preserved, the child was idiotic. Many cases, however, were cured completely, of which the author's cases were admirable illustrations. He had been particularly struck with the remedies that Dr. Bodman used, but he was afraid their trans-Atlantic friends would consider it polypharmacy, and therefore a thing to be avoided. He had long taken the view that in tuberculous patients it was necessary to aim at treating two conditions. There was, first of all, the constitutional dyscrasia, the tubercular condition which needed some remedy, and which was generally found in tuberculinum or calcarea; and at the same time some remedy was required which

was indicated by intercurrent symptoms as they developed from time to time. If the constitutional remedy only was administered, the patient was not given the full benefit of treatment, and he did not think any fear of polypharmacy should hinder them prescribing as the author had done. He had always found tubercular peritonitis, except in the very advanced cases, easy to treat. Many of the cases he had seen he had been able to follow through from childhood to adolescence, and he could recall two of these where the disease had completely disappeared. In one case, which he had exhibited at the Society, the abdominal distension was enormous, but the patient was now a healthy youth, and so far recovered that he was in an army band. In such cases he had found that iodide of arsenic was the sheet-anchor, with tuberculinum for the constitutional remedy. He attached the utmost importance to the early treatment of such cases. If there was a taint of tuberculosis in the family, the children should be guarded as far as possible from every source of infection, and from inviting the disease by too studious habits, or lack of physical exercise in the development of the chest and lungs. He was at present attending a patient, a gentleman, over 6 feet high, who had the flattest chest he had ever seen. There was no family history of tuberculosis, but the patient was of studious habits, had never developed his chest, and was now suffering from tuberculous infection of the lungs. He also attached the greatest importance to the kind of sleep children had. If children had disturbed nights, with night terrors, somnambulism, or the repeating of lessons, these were danger signs, and prompt steps should be taken to prevent the brains of these children being excited.

Dr. CLARKE thought one of the chief lessons to be drawn from the paper was "Never say die." The majority of the author's patients who were cured ought, by all the rules of science, to have died, but they did not. Dr. Bodman had asked for a differentiation between the symptoms calling for tuberculin and those calling for calcaria. He thought there was nothing but the schemas of the two remedies that were likely to differentiate them. One of the weak points of the author's cases was that so many remedies were given at a time. He believed that if only one remedy at a time could be given and its results noted, a great deal more would be learned about drugs; but in so many cases there was not time to do that, and the practitioner had to do the best he could immediately. The symptoms which called for calcaria were the well-known symptoms in

Hahnemann's chronic diseases, symptoms of the leuco-phlegmatic type, cold hands and feet, especially clammy feet, distended abdomen, and head sweats. The symptoms of tuberculinum were mostly derived from the symptoms of diseased patients. Personally he should say that tuberculinum covered a wider field than calcaria. One of the leading symptoms for calcaria, as Dr. Day said, was night terrors; it was also one of the leading symptoms of the tuberculous habit. He had cured with the nosodes of tubercle a number of children who were suffering from night terrors. Dr. Day had brought forward an important point when he mentioned that the cases ought to be treated long before the actual tubercle appeared, because there were early symptoms indicating danger, which, if treated with tuberculinum or calcaria, or other indicated remedy, often escaped an outbreak of tubercle. Another point which had been mentioned was the importance of after-treatment. Many cases to all appearances became perfectly well, but the dyscrasia was not always cured when the acute attack was over, and such patients ought to be kept under observation, and possibly under treatment, for years in those circumstances.

Dr. STONHAM drew attention to the great similarity between the lighter cases of tubercular meningitis and the cerebral symptoms of rickets. Cerebral symptoms and some fever were usually present with rickets, and many symptoms were developed very like some of those of meningitis, and in such cases he thought it was very difficult to draw the line. One of the lighter cases mentioned by Dr. Bodman might very well have been mistaken for a case of rickets in which the cerebral symptoms were prominently accompanied by fever. It was well-known that calcaria was the best remedy for rickets in children, and that fact tallied with its use also in tubercular meningitis; the symptoms of one being so similar to the symptoms of the other, one would expect that the remedy which was useful in the one case would prove useful in the other. It was not improbable that there might be a mixture of the two, and that in rickety children there was a greater proneness for tuberculosis to develop, especially of the meningitis type, than in other children.

Dr. WATKINS called attention to a very remarkable case of meningitis which was under his care, and which he believed must be almost without parallel, in a young lady, aged 18. Illness came on somewhat suddenly at the age of 15, with vertigo, vomiting, and some drowsiness, with rise of temperature, and very soon paralysis of the cerebral nerves developed. There

was slight strabismus, with diplopia and ptosis. The illness ran a course of about six weeks, and the patient made a good recovery. In the following year she had a somewhat similar attack, and also again last year. The signs of the paralysis of the nerves were much the same, with the addition of deafness and a small anæsthetic patch on the cheek. The patient made a complete recovery, both mentally and physically. In one of the attacks both Dr. Goldsbrough and Mr. Knox-Shaw saw her. He was in very great doubt as to the cause of the meningitis. Previous to the first attack there was a history of a blow to the head and also of over-study, but those two factors were altogether eliminated from the later attacks. He was rather inclined to think that it was a case of mild sporadic epidemic meningitis. As the members knew, the chief causes of meningitis of the acute form were tubercle, pneumococcus, streptococcus, and the meningococcus. It was generally thought that the first two were invariably fatal, and very few cases of streptococcus recovered. Although epidemic meningitis was a serious disease comparatively speaking, quite a large percentage of the patients recovered. He also wished to draw attention to the *Practitioner* for November, in which it was stated that Dr. Turton was preparing vaccines from the sputum of tuberculous patients.

Dr. BURFORD congratulated the author on his excellent paper, and the demonstration he had given that in his hands acute tuberculosis appeared to be no more fatal a disease than sore throat. Sir Frederick Treves had been exceedingly argumentative and incisive when he dealt with prevention, but he had little to say of cure, and to read the paper presented would do him a great amount of good in balancing his one-sided arguments. He wished to call attention to one clinical point which had served him well in diagnosing the condition of tuberculosis during the quiescent phase, namely, the character of the evening temperature. As a rule, during the quiescent phase there was nearly always a slight rise of temperature, the evening temperature not being less than 99° F, and not more than 100° F. He relied upon that clinical indication with very considerable success. It frequently happened, although not always, that in young girls tubercular peritonitis sprang from prior tuberculosis of the Fallopian tubes. He had a case during the past year which was one of the exceptions proving the rule. A young lady who had suffered very much on the Continent from repeated attacks of appendicitis, was seen by two eminent diagnosticians before she came under his care, and those gentlemen pledged themselves to

the statement that, whatever there was amiss with her, there was no appendicitis. He had occasion to open the abdomen and remove the appendix, and at the same time he noticed there was present the rare condition of tuberculous thickening of the ileo-cæcal valve. He removed the appendix, liberated the ovaries from the adhesions in which they were embedded, and found that the tubes were uninvolved. Under Dr. Wheeler's care the opsonic index was repeatedly taken, and the patient was given repeated doses of tuberculin 30. She made an excellent recovery, and has had no more trouble with tubercular peritonitis. That was a case in which the clinical evidence and the pathological proof of tubercular peritonitis were distinctly present without any prior involvement of the Fallopian tubes.

Dr. NEATBY was surprised that Dr. Bodman found it so easy to diagnose peritoneal tuberculosis. In some women's cases, at any rate in his (Dr. Neatby's) opinion, it was not very easy to do so. Only a short time ago he had occasion to open the abdomen of a woman suffering from acute salpingitis on both sides, which before the operation and for some time after was diagnosed as gonorrhœal salpingitis. The history and the look of the tube to the naked eye suggested it was due to gonorrhœal poisoning, but it was found by microscopic examination that it was due to tubercle and not to gonorrhœa. With regard to the immunising response in late cases, the author had pointed out that it was extremely difficult in those cases, where reaction was very feeble, to get any good results. That statement had been based on two forms or degrees of treatment, namely, on the treatment by very high dilutions of tuberculin and also by comparatively gross doses of tuberculin. He thought most observers had shown that that was the case. From his limited experience, he thought it was just possible that a middle course, *i.e.*, a semi-material dose, might be productive of better results. He thought in such cases a dose might be given sufficient to produce some evanescent depression, but it was not necessary to give a dose of tuberculin which would produce a depression of the opsonic power lasting over several days, and going down two or three points on the scale. Where, however, a very much less reduction both as to time and degree might be obtained with a semi-material dose, say one twenty-thousandth milligramme or one forty-thousandth milligramme in place of one one-thousandth or one two-thousandth milligramme, better results might be obtained than either with the low or high. He thought a great deal of good might be done by following up a suggestion which he first saw in

an article by Dr. Nathan Raw, of adapting the kind of tuberculin to the cases, *i.e.*, that an endeavour should be made to get a little more of a *simile* than an *idem*. Discussion had taken place at the Society as to whether treatment by tuberculin was isopathic treatment or homœopathic treatment. Dr. Nathan Raw suggested that in pulmonary tuberculosis, which was a human tuberculosis, a bovine tuberculin should be given, and that in peritoneal tuberculosis a human tuberculin should be used. He (the speaker) had been dabbling a little with those cases since he took an interest in the opsonic treatment, and he noticed that in some pulmonary cases he had obtained better results with the bovine than with the human tuberculin. He wished to ask Dr. Bodman whether he understood him to say that in some cases of tuberculosis he had obtained an agglutinative reaction with the tuberculous serum similar to Widal's in typhoid.

Dr. GRANVILLE HEY thought it would be agreed that, in addition to medical treatment, tuberculous patients needed careful feeding, but it was very often difficult to feed such cases because of want of appetite and diminished power of assimilation. He would like to know the system of feeding the author adopted in such cases, and whether he ordered cod-liver oil or emulsions and similar aids to treatment. He would also like to know how he combated the constipation which seemed to have occurred in the majority of his cases. Did he wait for the results of the homœopathic remedies or had he recourse to aids in that direction?

Dr. BODMAN, in reply, thanked the members very heartily for the kind way in which they had received his paper. It did not contain original work, but was simply a confirmation of the good work which had been done by their predecessors. Dr. Neatby was surprised at his saying that tuberculous peritonitis was usually distinguishable from non-tuberculous forms. He was quite prepared to believe that when he had had their experience he would say the same. What he said was not that there were no cases where diagnosis was difficult, but that the usual thing was for it to be possible to say clinically that a case was either tuberculous or non-tuberculous. He had thought it might be said that at least three out of four cases of tuberculous peritonitis had characteristic symptoms which proclaimed them as being tuberculous. Dr. Stonham's suggestion with regard to rickets was an important one which ought to be taken into account in cases presenting cerebral symptoms, but in the cases under discussion the ages of the patients were such that rickets was

somewhat unlikely. The ages were 5½, 8, 5, and 3, and they had all been fairly healthy children up to the date of illness, so that rickets was not so likely in those cases as if they had been infants under two years of age. Their age, and also the absence of retraction of the head in each case, were points which rendered it improbable that they were cases of simple basal meningitis, a condition somewhat common in children in the first year of life. In reply to Dr. Neatby's question, it was a fact that there was an agglutination test for tubercle analogous to the well-known Widal test for typhoid. His (the author's) suggestion that more attention should be given to the bovine nosode was based on the observations of Dr. Nathan Raw, to which Dr. Neatby referred. In reply to Dr. Hey's question, in some of the cases Scott's emulsion was used, and in others Virol; in a general way the basis of the diet was milk. With regard to constipation, in no case was any aperient given.

ON THE RELATION BETWEEN THE ADMINISTRATION OF PHOSPHORUS AND THE OPSONIC POWER OF THE BLOOD OVER THE TUBERCLE BACILLUS.¹

BY CHARLES EDWIN WHEELER, M.D., B.S., B.Sc.LOND.

Assistant Physician to the London Homœopathic Hospital.

WHEN my attention was first directed to the relation which I hope to establish (at least in my own case) in this paper, and even seven or eight months ago when I began definite experiments to that end, there was apparently a general agreement that the so-called opsonic index of the blood was a point that could be determined with sufficient accuracy to be valuable. More lately, however, there has been a disposition to question this conclusion, and a feeling is abroad that the margin of error in investigation is too great for practical purposes. Not that the fact of opsonic action is denied, but the trustworthiness of any one observation, or any series of observations, of the opsonic index. Now the opportunities for error are many; the procedure is complicated, and the technique not difficult but trouble-

¹. Presented to the Section of Materia Medica and Therapeutics, November 7, 1907.

some. I am not prepared to accept the figures of anyone who does not combine experience with care, and a capacity for taking pains. Further, there is a personal factor in the counting that necessitates that the same worker shall make all observations that are to be compared. Again, it is desirable that the man who calculates the index shall not have any previous knowledge of the likelihood of its range, for there is a well-known psychical tendency in us all to find the thing we expect to find. Given, however, these safeguards, I do believe the opsonic index can become a valuable indication. If I am proved wrong, the worth of this paper will be zero, so the trend of my inclinations is obvious. Therefore, before I describe my experiments, I will lay before you one or two points upon which I base my faith that however doubtful opsonic figures *may* be, it is nevertheless possible to obtain some that are trustworthy. The technique of the operation has been described over and over again. I shall not weary you with it now. It will suffice to remind you that the effect of the opsonin (be it one substance or two) is exerted on the bacillus, and tends to make it fall an easier prey to the phagocyte; that the opsonin is produced in the body, is normally present in some quantity, and can be increased in response to the stimulus of the toxin of the bacillus it is designed to affect. My claim at this moment is, that it is possible to make a reasonably just estimate of the amount present at any given moment.

My first point is that on three separate occasions the opsonic index of a case was calculated at Nordrach-on-Mendip and independently at the laboratory at St. Mary's Hospital, serum taken at the same hour being employed. The worker at Nordrach was myself on one occasion, and my late colleague, Captain Meakin, on the other two. Captain Douglas, I believe, made the calculation at St. Mary's. On each occasion each worker was ignorant of the result obtained in the other laboratory until after he had arrived at his own, and the results in the three cases showed a maximum difference of 6 per cent., and a minimum of 2 per cent. As a margin of 10 per cent. certainly can be allowed in attaching weight to opsonic results, these

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figures seem to me satisfactory ; and it is almost inconceivable that on the only three occasions on which comparison was made, coincidence should have dictated results so parallel.

Take now two practical instances. In the early days of this treatment, when we used to give larger quantities of tuberculin, I injected a patient with a dose larger than I should now employ. His index fell (the so-called negative phase), but did not rise as it should, and he remained in a negative phase for six weeks. Throughout the whole of that time his physical condition corresponded to the results of his blood examinations. His index was always "low"; and observe I used to estimate it as one of a numbered series, with no knowledge whose was the index I was calculating till after it was done. As I made some eight or ten estimations during this period, it is inconceivable that chance should bring it about that the man whose physical condition suggested a negative phase should always show the negative phase, unless there were some causal connection between observation and condition. The coincidence would mean much less, of course, had I known when I was working on his blood ; but remember, I came to it as one of a series which would show indices both high and low, and never knew till I had recorded my results which patient was represented by any given number on my list.

My second instance is that of a friend of mine who came to the sanatorium in a fairly acute stage of disease, and in the course of fourteen months made (apparently) a marvellous recovery. No bacilli were found in his sputum for three successive months (several examinations being made in that time), and all expectoration ceased long before he left. No physical signs could be found in his chest, and his physique and power of endurance seemed to be rather above than below those of the average man. At this stage of apparent cure, his blood showed an index of 1·8, 1 being the normal. These were the early days, before Sir Almroth Wright had pushed his enquiries very far, and I remember we regarded this high index (taken on several occasions and always high, ranging 1·4 to 1·8) as a good sign. Now we

know that it was evidence of active, though unrecognisable, disease. The sequel justified the index. In six months he broke down again badly ; and though he lived two and a half years thereafter, he was an invalid nearly all the time. Now, when his blood was examined, it is true there was a certain expectation of finding it high ; but, if anything, we expected it to be higher still, being ignorant of the true meaning of a high index, and it is remarkable that the blood never wavered in its warning, had we been wise enough to note its message.

Therefore, I must admit that I cannot as yet refuse to trust some opsonic figures, however doubtful I might feel of others, and as my experiments have, I think, a possible value I will proceed to relate them.

Throughout this series of experiments I have been the subject. I have dosed myself with phosphorus under varying circumstances, and my blood is throughout compared with that of Mr. Collings, my assistant in the laboratory of the British Homœopathic Association. I made, first, some observations to assure myself that Mr. Collings' index was a normal one (comparing it for the purpose against that of several healthy people on different occasions), and preferred his serum as control to the usual mixture, because it was easier to ensure that one man should live under the same general conditions as I myself, than that several should. He is a smoker, and I am not, but otherwise our tastes in food and drink and our habits of work are quite comparable, and we are both rather sedentary, at least we avoid violent exercise, a matter (possibly) of some importance. I tested the accuracy of his estimations of indices, and having satisfied myself of his care have throughout entrusted the calculations to him. By this means he has never known whether the blood he was estimating was likely to be " high " or " low," and the possible factor of " expectation " has been entirely excluded. I, alone, have known when I was taking phosphorus and when I was not. Mr. Collings' work has been to find the figures, and without his painstaking co-operation these curves could not have been made. Before, however, I speak of these

diagrams, I must relate to you the first hint I obtained that this was possibly a fruitful line of research.

Although, to the best of my belief, I am not in any way affected with tubercle, my own index to the bacillus, though variable, is practically always "low." Taking normal as one, I expect my index to range from '6 to '85. I have been higher and lower, but that is my usual range. The first estimations of my index were made by Sir A. Wright, and came out on two occasions, with three weeks' interval, at '6. Sir A. E. Wright urged me to take a dose or two of tubercule, but my homœopathic experience, not unnaturally, suggested to me an alternative plan. It occurred to me that since opsonin is produced in response to circulating toxin, that is, to a chemical stimulus, it might conceivably be produced in response to a drug stimulus (a different chemical stimulus), provided I could find a drug whose effects resembled in other ways those of tuberculin. That is to say, if tuberculin causes production of T. opsonin, why not the simillimum to tuberculin? But the simillimum to tuberculin, or rather to tuberculosis, varies in different cases, and all I could do was to try a drug that is commonly found useful by homœopaths. My first experiment was with ars. iod. 3x; it was not in any way exhaustive, as I only took four doses before having my blood tested again, but judging from my experiences with phosphorus, I think it probable that even four doses might have affected the index had the drug been appropriate. As a matter of fact, the index was returned at '58. Before the next estimation I began on phos. 3x, taking a dose or two (generally two) in the twenty-four hours. After a week of this treatment my index was '88. Continuing phos., but more seldom (one dose in twenty-four, and sometimes in forty-eight hours), for seventeen days the index came out at 1'00. The administration of the drug was then stopped. Four weeks afterwards the index was down to '36, but in a month, the last three weeks of which I had taken occasional doses of phosphorus, it came out at '99, and the height thus reached was maintained without the drug for some time thereafter. These figures were all recorded by Sir Almroth Wright, and

he had no knowledge at any time whether or no I had been taking any remedy. A slight confirmation of these results was obtained from the case of a nurse at the Sanatorium, with a low index, but no signs of tubercle. Her blood rose less markedly than mine under phosphorus, but still definitely, some 30 per cent. In any case the results thus obtained were enough to make me wish to try further experiments, and the laboratory of the British Homœopathic Association supplied the opportunity. The method adopted throughout has been to estimate my index at intervals during a few days, then if it seems steady to begin taking the drug, and make a few more estimations; then after a varying period to cease taking phosphorus, and watch for a further change in the index. In no case has the calculator had any idea of the time of drug-taking, if the curves are due to coincidence it is, at least, coincidence untempered by expectation. I will give further details presently: just now I wish to say that my index varies somewhat from month to month, but seems generally steady for any period of a week or so. That is to say, such fluctuation as may be termed natural (though phosphorus is so deep-acting a drug that there must always be a little doubt as to its complete elimination) is very slow in my case. No sign has ever been found of the rapid changes I am going to point out in these curves, except on one occasion, when four observations in five days showed indices of .93, 1.25, .8 and .65. This unexpected series coincided exactly with the onset and development of a nasal catarrh, the worst (though not very severe), that has assailed me for a twelvemonth. Seeing how common a theory it is that traces phthisis back to a "neglected catarrh," I was naturally struck with this lowering of the index to tubercle during catarrh, though of course one observation does little to shake the incredulity that attaches, among professional men, to that piece of popular pathology. Still I mention it, and shall explore the matter further. I invite co-operation to that end. For the rest, the level at which my blood starts in the curves is always determined by more than one observation, and the possible effects of catarrh in the causation of the changes can be eliminated.

Experiment No. 1.

Index on March 22, '76.

,, 28, '74.

Phos. 3x, one dose per diem begun on April 1.

Index, April 4, 1.43.

,, 8, 1.57.

Phos. suspended on ,, 9.

Index, ,, 11, '74

In this case I was assuming that the drug might take a few days to act; there was a very sudden drop on ceasing to take it (see fig. 1).

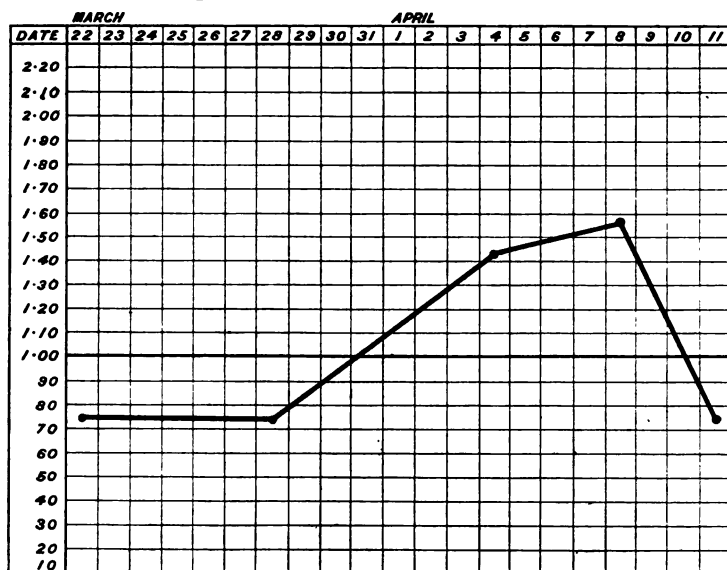


FIG. 1.

The next experience was less striking.

Index, April 15, '86.

,, 18, '64.

I have a note that on this date I was feeling below the normal mark. However, on the 19th, I began phos. 3x, one dose daily, and

April 22, index 1.04 : ceased phos.

,, 24, ,, '93.

,, 29, ,, '94.

There is a rise here, but not a marked one (see fig. 2).

The third experiment contains only three observations: the index starts at $\cdot 77$ on May 6. Phos. 3x begun on May 7. Index on the 10th $1\cdot 8$, falls by the 13th to $\cdot 7$ again, the drug being stopped on the 10th (see fig. 3).

The fourth experiment is much more curious. From May 10 to June 8 four observations showed indices of $\cdot 7$, $\cdot 93$, $\cdot 81$, $\cdot 93$. On the days June 9 to 14 I took one dose daily of phos. 30; on both dates, 14 and 20, my index was $\cdot 4$, on the 25th and 29th, $\cdot 7$. That is to say, immedi-

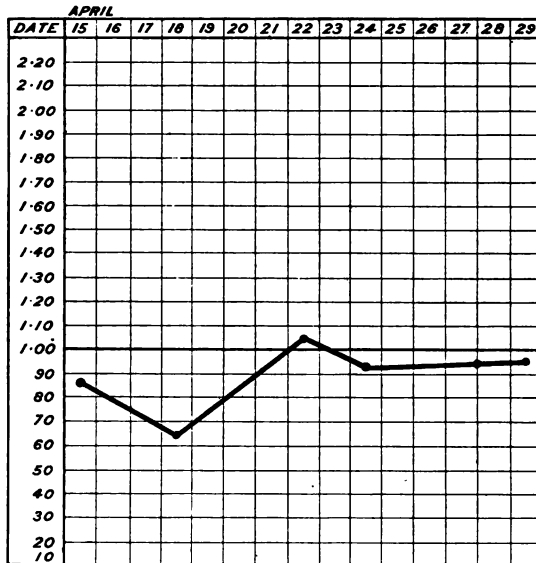


FIG. 2.

ately after five days of phos. 30 there was a marked fall, lasting six days.

On July 3 the index was $\cdot 77$, on 6th $\cdot 95$. Phos. 30 begun on that date—6th. Taken on 7th, not on 8th; on 9th and 10th, not on 11th and 12th; but again on 13th, 14th, and 15th—that is to say, intermittently from 6th to 15th. The indices were, on 6th $\cdot 95$; on 9th $\cdot 91$; on 12th $\cdot 84$; on 15th $1\cdot 06$; on 16th $1\cdot 00$; and on 19th $\cdot 74$. The effect, therefore, of the 30 was first a slight fall, then a slight rise.

These anomalous results determined me to retry the experiment with 3x dil.

The index on July 19 being $\cdot 74$, on the 23rd $\cdot 85$; on the last-named date I took a dose of phos. 3x (after the blood had been taken that was found to stand at $\cdot 85$). On the 24th and 25th a dose was also taken—that is three doses in all. On the 26th the index was $1\cdot 2$; on the 29th $1\cdot 23$; on August 2 $1\cdot 03$, and on the 12th $\cdot 81$. This was the best curve so far produced. I now determined to try the effect of one dose, and the next curve represents the result of this experiment.

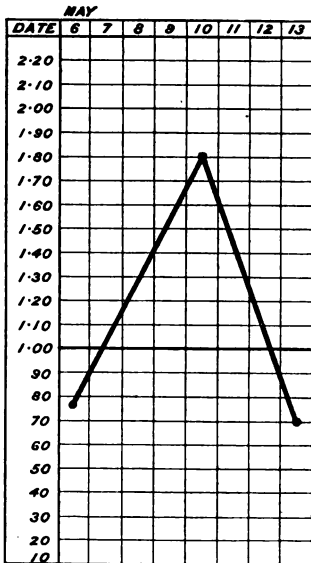


FIG. 3.

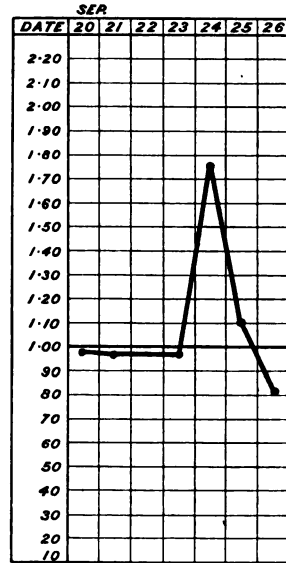


FIG. 4.

On September 20 my index was $\cdot 98$; on the 21st $\cdot 97$. On the 23rd one dose (3 drops) of phos. 3x was taken. Two hours thereafter the index was $\cdot 97$, but next day (24th) it was $1\cdot 75$, on the 25th $1\cdot 10$, and on the 26th $\cdot 81$. Therefore the one dose produced a short but very satisfactory curve (see fig. 4).

There remains one point. As a small dose of phos. seems to raise the index, do poisonous doses lower it? Obviously, my own experiments have not been pushed far enough for this, but I submit to you that the cases of caries of the jaw, so familiar in phos. poisoning, suggest an answer to the

question. In such cases tubercle bacilli are commonly found. Therefore, either the caries is a tubercular affection, whose onset is determined by the local effect of the phosphorus, or else the phos. inflammation results in a local condition that independently favours the growth of tubercle bacilli. In either case that is almost tantamount to saying that there is at any rate a local lowering of the tubercular opsonic index. On the face of it, it is unlikely that so small a dose as a few drops of phos. 3x would produce a negative phase; for as you know, with the smaller doses of tuberculin the negative phase is usually absent or unnoticeable. To complete my series, however, I submit to you this curve wherein examinations were made every few hours after a dose. You observe there is a rapid rise, which may correspond to the initial positive phase sometimes found to precede the negative, then a fall and the beginning of a further rise. Unfortunately the observations were not continued long enough to determine whether the initial rise was the end of the positive phase, or if there were a more marked one still to come. The observations end in twenty-four hours.

Now, no one is more conscious than I that these curves are rather suggestive than conclusive; but the fact that the more rigid conditions of the last two of the 3x experiments have produced the best results, encourages me to lay before you the evidence so far obtained. There seems to me good reason to believe that in my case the administration of phosphorus does affect the tuberculo-opsonic index. It would be a far cry from this statement to announce that the drug always affects the index of everyone in this way. We know as students of *materia medica* that there are genuine drug effects available for use in prescribing that are not universally produced on the healthy, and I may be a specially susceptible prover, but seeing how often the symptoms of tubercle call for phosphorus by the law of Hahnemann, it is at least suggestive if in one healthy person that drug should be capable of affecting favourably the normal defence of the organism against that invader. I want, of course, more evidence, that is, more provers. After Christmas I hope to be in a position to make some more experiments,

and if any one present will offer himself as a subject I will gladly arrange details with him. The field of research is obviously a large one. We may find a specific relation between hepar and silicea and the opsonic index to pus cocci, and you can readily imagine other possible developments.

You will have observed that at no time have I taken any great quantity of phosphorus. I have not developed many general symptoms, but those that I have most frequently noticed when under the influence of the drug have been dull heavy frontal headache > out of doors, increased appetite, griping abdominal pain, not severe, coming on generally in early morning before rising, and occasionally during the day about one and a half hours after meals, without flatulence, and > movement: finally, a certain degree of constipation noticeable, a symptom practically unknown to me; motion of a poor colour, and inclined to be long and narrow. Reference to Dr. Clarke's dictionary will confirm the modality of the headache, the increased appetite and abdominal pain, and the constipation, but my symptoms only present in a mild degree the effects of a proving of phos. I have included in this paper the two experiments with a high dilution of phos., and they are the first I must repeat. At present I cannot explain them satisfactorily. The second might pass for showing that the drug had had no effect at all, but the first is more extraordinary. Obviously the next test must be to make daily observations after one dose of the 30th.

Now, you may very well ask me, What good end I imagine myself to have served by these experiments? I am afraid I have no very satisfactory answer. I do not recommend anyone to prescribe phos. because of them, unless it is otherwise indicated, for my expectation would be that the indicated simillimum would raise the index whatever drug that turned out to be, and all that I conclude from my experiments as yet, is that if I were to develop tubercle my symptoms would probably suggest phos., as evidently my system has a relation to that drug. I think a study of the curves suggests that phos. once a day might be better than three times, as the rise after one dose lasts twenty-four

hours, but even that point needs more research. Perhaps the best I can claim is to have added a little weight to our provings by showing that the lead they have so often given to the use of phos. in tubercular disease is justified so far by the results of laboratory experiment.

The PRESIDENT considered it not a little remarkable that the first two papers submitted during the present session were on the subject of tuberculosis, and that, taken in conjunction with the fact that other papers on the same subject had been read at two previous sessions, showed the great interest the question was eliciting at the present time. No doubt, from the researches of Professor Wright, increased light had been obtained, and the circumstance that his researches had all been on homœopathic lines naturally stimulated homœopathsists as a body to further researches on the same subject. The author's paper might be laid before the Royal Commission on Vivisection as proving that drugs could be favourably proved upon the human subject, and that information could be obtained in that way which, from the homœopathist's point of view, was very much more valuable than that obtained from animals. He thought the paper opened up a new field for discussion and research, namely, the effect of drugs on the opsonic index. Not only vaccines but drugs had the power of raising or altering the opsonic index. That of itself might afford an answer to the oft-repeated question, How do your drugs act? He was recently telling a young allopathic friend of the effect of a certain drug in a given disease, and his friend at once asked him how the effect was obtained. All he could tell him was that it cured because it had the power of eliciting similar symptoms in the healthy state. If it had been a microbic disease, which it was not, he could have said that the drug had the power of raising the opsonic index. If it could be proved in a general way that homœopathic drugs had the power of raising the opsonic index, it might go a long way towards satisfying the doubts of their allopathic friends. As he had pointed out on a previous occasion in connection with the anti-toxic treatment, that would be impossible in every disease, because obviously it was only applicable to microbic disease; if the disease was not a microbic one, the opsonic index could not be obtained. Therefore, if it was to be applied in a general way, it could only be by analogy.

Dr. MADDEN congratulated the Society on the first paper

which had come before it as the result of the laboratory research work supported by the British Homœopathic Association. If no other paper had resulted from that work than the present one, he thought it was a full justification of the work that excellent Association was doing. In itself that was of extreme interest, for he thought they must all believe that, though they had not yet been shown to have exactly similar opsonic indices, it was possible that all diseases were associated with the rise and fall of the resisting power of the organisms to whatever was producing the disease symptoms. If it was found that homœopathic drugs had the same power in regard to particular organs and particular disease products that the diseases themselves had, as it was almost certain they must have, that was an absolute demonstration of the power and also the explanation of homœopathy.

Dr. NEATBY said the few remarks he had to make were based upon a very minute experiment he made, which was hardly worth comparing with the author's lengthy, varied, and accurate series. The question as to whether drugs could influence the opsonic index had interested him for some time, especially when he read some months ago that Sir Almroth Wright had made some trials which resulted in a negative. He forgot what the condition was, but the drug used was arsenic, and he found it had no influence on the opsonic index. In his own little experiment he began a series of estimations of his tubercular opsonic index. The first few experiments were made during the acute stage of a considerable catarrh, and he put the results aside as valueless; they fluctuated very much. But the last three, when the catarrh was subsiding or had subsided, worked out on successive days at .86, .81, and 1, giving him an average, roughly speaking, of about .91. He took one dose of phosphorus of a considerable magnitude—he did not know on what lines the author was working, otherwise he might have copied him and thus obtained a better comparison. He took ten drops of Gould's solution, 1 in 200, which represented one-twentieth of a grain of phosphorus. The drug was taken about ten o'clock in the morning, and the index, taken the same morning prior to the dose, was exactly normal. At two o'clock the blood was again taken, and the index found to be .76. The next morning at ten o'clock the index was 1.25, and the following morning it was higher still, 1.59. A few days later it had fallen to normal. Thus it showed a typical "negative phase," a marked reaction ("positive phase"), and a subsequent fall to the ordinary level. It might be of a certain amount of interest if he stated that, side by side with that experiment, he tested his index to the

staphylococcus neoformans. He knew, from a good many former investigations, that his index to the micrococcus neoformans was about .95. After taking the phosphorus, he tested at the same moment the index to the staphylococcus neoformans, and found it varied scarcely at all, being .81, .85, and .83; so that it appeared to have no influence on the staphylococcus index and a considerable influence on the tuberculous index.

Dr. WATKINS thought everybody was agreed as to the value of the opsonic values of the blood, but every worker in that connection with whom he had come in contact agreed that the method of estimation was an inaccurate one. It was sufficiently accurate to help physicians very materially in the use of vaccines, but to say that any definite drug or other product would produce a certain effect on the opsonins was, he thought, open to very grave doubt. Some two years or more ago the British Homœopathic Association allocated a grant to him to investigate the subject; the drugs that were to be investigated being phosphorus and iodide of arsenic on the tubercle bacillus, phosphorus on the pneumo bacillus, and hepar-sulph on the pus cocci. He did a good deal of work, but he was not able to satisfy himself that the drugs had any definite effect on the opsonins, and consequently he had not applied for the grant, but turned his attention to other researches. He thought French was as good and careful a worker as anybody, and that experimenter gave an example of three different observers who examined the same blood; and although he did not remember the actual figures, in round numbers they were as follows: The first observer made it .5, the second made it a unit, and the third almost two units, so that there was a very great deviation. He thought cases of pulmonary tuberculosis were almost useless for investigation, because everybody agreed that the indices there fluctuated a great deal; sometimes they were below the normal, and sometimes above. Another proof that too much attention must not be attached to the accuracy of opsonic estimations was a case of tubercular kidney which he treated in the hospital fifteen months ago. The patient, a woman, had previously been to the London Hospital, where the surgeons desired to remove the tumour, which was of an enormous size. He treated the case for twelve months, and at the end of that time Dr. Moir was able to report that he could only just feel the lower end of the kidney, and that the symptoms had disappeared. In that case he frequently gave injections when the opsonins showed a negative phase. The patient had a feeling of exhilaration after the injections; in fact, she used to call

them her champagne. Under the circumstances he felt he was justified in going on with the treatment in spite of the negative phase, as he obtained such a grand result. He injected tuberculin, chiefly one four-thousandth of a milligramme, once in three weeks. There was no other treatment at all. With all due honour to Dr. Wheeler, and without wishing to cast any reflections on his work, he thought the figures which had been given were a striking example of the inaccuracy of the estimations. Dr. Wheeler had stated that his own opsonins fell below .56. If that was a true reflection of the opsonins of the blood, Dr. Wheeler must have had tuberculosis, and if he had not had tuberculosis then the estimations were incorrect.

Dr. NEATBY asked Dr. Watkins to indicate what method was adopted in making the estimations. He believed there was a method used in the hospital known as the short method, *i.e.*, taking a sample direct from the patient's finger or ear, and mixing it at once with the other necessary ingredients without letting it stand.

In reply to Dr. Neatby, Dr. WATKINS said he found the short method useful for ordinary therapeutic work, but in the experiments he had mentioned he was speaking of the long method.

Dr. GOLDSBROUGH thought the author's results were of value because they presented a series of experiments in one person, and that was the particular evidence homœopathists required in drug experimentation. A series of seven experiments on one person with one drug of different doses, gave just the results it was necessary to obtain in order to learn what the effect of that particular drug was on certain phenomena. In reference to Dr. Watkins' criticism, he (Dr. Goldsbrough) did not think Dr. Wheeler claimed that the experiments were more than suggestive; and in his (Dr. Goldsbrough's) opinion, the experiments were extremely suggestive as to the line of research which ought to be followed out. As the principle was carried further, defects would gradually be eliminated. The paper had impressed him with the sense that the line of research which had been undertaken was likely to be very fruitful, if the personal idiosyncrasy of particular persons and drugs was borne in mind, and, of course, the personal susceptibility to rise or fall in the opsonic index.

Dr. GRANVILLE HEY said it seemed to him, if he understood the author aright, that phosphorus 30 was of practically little value in endeavouring to raise the opsonic index to tubercle, and that 3x produced much more definite results. He would like to enquire whether Dr. Wheeler felt warranted in concluding from

that, that in using phosphorus for presumed tuberculous cases the drug had better be used low than high. With regard to Dr. Wheeler's remarks on so-called phossy jaw, he would like to ask whether he would be inclined to give phosphorus in the treatment of that disease from a homœopathic standpoint.

Dr. McNISH congratulated the author on his extremely interesting paper, and stated that the results of his experiments supported the conclusions at which he (Dr. McNish) had arrived in prescribing phosphorus for pulmonary diseases.

Dr. WHEELER, in reply, thanked the members very heartily for the kind remarks they had made on his paper. He especially claimed that the experiments were not conclusive, but only suggestive, and for that reason he should not agree to the particular evidence brought forward being laid before the Vivisection Commission until supplemented with other experiments. He claimed, however, that the latter were at any rate suggestive, and pointed in a certain direction. First of all, personally he had not, as far as he knew, any tubercle, and his index was low. He denied entirely that the result he had obtained in the experiments was an impossible occurrence. He had found a good many people with low indices and no signs of tubercle. That might be an explanation of what was called disease running in families—that what people inherited was definite lack of resistance in the blood. It by no means followed, however, that because a person had a low resistance he must develop tubercle, if he was healthy in other ways, and he would be a very bold man who said that the only defence the body made against tubercle was the opsonic resistance. There was no reason to believe that the body confined itself to one defence; there might be many others. He frankly asked Dr. Watkins to read Professor Wright's paper very carefully before he assumed that the investigations had no value at all. All sorts of people used to write to them at the Sanatorium, sending them sheets of paper on which results were plotted, and saying, "How do you explain them?" They could not be explained, except by the fact that those experimenters had not mastered their technique. He was prepared to accept the results that came from St. Mary's Hospital, but Dr. French, who was an excellent observer, quoted the results of three other people, and one did not know who those observers were. Dr. Watkins said that he gave a one-four-thousandth milligramme in a particular case. That was a perfectly safe dose to give, and, if given to a person whose index was anywhere near normal, would probably not

produce a negative phase at all. If only as little as that was given it did not matter. Besides, it was necessary to know if a negative phase was going down, or had it touched bottom and was going up. If the bottom of the negative phase had been reached the dose could not have been given at a better time; if it was going down it was a different matter; but even then so small a dose would in all probability be safe enough if not too often repeated. The evidence on which he chiefly rested his case was the fact that he had shown every curve that had been made. If a curve was begun when he was feeling seedy and his index was not steady, he abandoned it; at the beginning of the experiments he abandoned the curves even when they varied 5 or 6 per cent. After a time he thought that was going too far, but he always abandoned them if the variations in the preliminary examination ran over 10 per cent. If any of the diagrams were taken, except the two when the thirtieth dil. was employed, it would be seen that there was always a rise, although not always the same, coincident with the time of taking the phosphorus. Although Dr. Watkins might say that his (Dr. Wheeler's) index fluctuated, it never fluctuated to such an extent except when he was under the influence of the drug. The gentleman who was making the observations never knew when he (Dr. Wheeler) was taking the drug, and it was inconceivable that he should know that the index was high when the drug dilution was high and low when it was low. Why Dr. Neatby had apologised for his experiments he did not understand; he took a big dose and succeeded in getting a negative phase; and a better curve than the one recorded he never wished to see. Further, Dr. Neatby counted his strides in ignorance when he was dealing with control and when with patient, and that fact excluded the factor of anticipation. Dr. Neatby had remarked on how extraordinary it was that his blood should remain the same to the staphylococcus. That was what would be expected beforehand. All drugs were regarded as being specific, and there was no other explanation, therefore, than the one that the drug had some effect. Much more evidence on the subject was wanted. The paper was only an instalment indicating that the experiments made were a fruitful line of research, and might profitably be followed up. As far as his own personal feelings were concerned, they varied very little whether he was high or low. As a matter of fact, he enjoyed pretty good health. The pains he had recorded sometimes came in one stage and sometimes in another, and he could not say there was any particular change in his personal feelings. In reply to Dr. Hey's question, he found, as a matter

of experience, that he did not often go above 3 in giving phosphorus in chest cases. If he used 3x, he gave it very seldom, one dose a day. He had given phosphorus higher in chest cases; he was not prepared to say it did not act, but his instinct was to give it fairly low. He certainly did not think he should give phosphorus in a case of phossy jaw.

SOME ASPECTS OF ABDOMINAL PAIN IN
WOMEN, WITH REMARKS ON CONDITIONS
SIMULATING PERITYPHLITIS. A SUPPLE-
MENTARY PAPER.¹

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SUPPLEMENTARY REMARKS ON ABDOMINAL PAINS.

PAIN is a complex phenomenon, and is usually regarded as consisting of three kinds:—

(1) *Local*, or that felt at the site of the lesion, and due to afferent impulses conveyed to the spinal cord and thence to the cerebral centres.

(2) *Pressure*, due to a lesion in the course of a nerve, but not necessarily felt at the point where the lesion exists, though in direct continuity therewith.

(3) *Referred pain*, viz., that depending upon the lesion in question, but felt more or less remotely from it. Moreover, in referred pain, nerve continuity cannot be traced.

To this well-recognised group I would add two other kinds, viz.:—

(4) *Resting pain*, which I have referred to in a former paper; and

(5) That which may be called *habit pain*.

This last requires careful handling to avoid pitfalls, as we shall see directly. Given a primary lesion, the pain connected therewith as a *whole*, let us say, is represented by *x*. What are its component parts, and what the proportion of each of these to the rest? We may have suffi-

¹Presented to the Liverpool Branch, November 14, 1907.

ciently studied and analysed *x* into its component parts, namely :—

Local, Pressure, Referred and Resting Pains, but we are still confronted by the most difficult and sometimes the most discouraging factor of all, namely :—

No. 5, or *habit pain*.

The reason that to be confronted with habit pain is discouraging is obvious enough, for it depends largely upon the personal equation of the patient, and this may, or may not, be first knowable to the practitioner.

Suppose, in a given instance, that the pain indications comprised under the headings up to No. 5 have been carefully weighed, and we have come to the conclusion that the trouble lies in a certain organ. That organ is removed, and everything goes on well, and the patient is obviously immensely better, but not absolutely cured. There is a shadow of pain in the old spot which alarms the patient, who considers it portends evil, not to mention the impression left on her mind that but a partial cure only is going to result from the operation. It is this wraith of the departed demon that I have called *habit pain*. "Rhythmic habit spasms," or "tics," as the Germans have it, in the domain of neurology are well known, and "habit cough," "habit insomnia," are common enough, so, too, is *habit pain*, though we do not so readily recognise it.

The patient in whom habit pain is well marked is rather an illusive person from the practitioner's point of view, and may require all the arts of persuasion to be convinced that all pain eventually will assuredly be a thing of the past. In most cases this is certainly assured by the previous treatment of the actual lesion, hence the information can be conveyed with an emphasis which convinces.

I mentioned that this kind of pain requires careful handling, and so it does—especially when we are making a diagnosis—from the point of view of *proportion*. If we allow undue prominence to it in the *rôle* of our patient's sufferings we shall be hindered in our investigation of the other factors, and may even get so far astray as to call the case one of hysteria. Thus by-and-by there will be a

cataclysm which we may richly deserve. "Habit pain" and "hysteria" are constantly confounded. A word as to *treatment* of this pain. It is summed up in one sentence, viz., give the patient an objective, and she, unless hysterical, is thankful to get it, thus incidentally clearing up the question as to whether the case be habit pain or hysteria. The objective may take the form of a bicycle on the one hand, or a sick neighbour who needs a kindness on the other. In fact, anything which shifts the contemplation of the ego to a more worthy object.

The following case presents fairly clearly the five-fold character of pain which I have thus but imperfectly described :—

Mrs. L., aged 44, suffers from severe pain, the character and site of which I will immediately describe. She has a persistently retroflexed uterus, with no obvious complications in tubes or ovaries. She has been married eight years, and her sufferings commenced shortly after. There have been no pregnancies. The catamenia are of the three-weekly type, moderate in amount, and their recurrence does not materially affect the patient's sufferings. Leucorrhœa is moderate; the appetite is very good, and she sleeps quite well. The pains complained of are just below the left false ribs and in the renal region of the same side, also in the corresponding buttock. She described them as of a "scraping" character. There is pain also in the coccyx. The pain in the renal region and under the ribs is relieved on lying down, but sometimes only by tucking a pillow firmly underneath the aching area. The pain begins when the body is erect, sometimes even before the patient is fully dressed. Mangling and churning also make it worse. She has been told that she has a "dry pleurisy," and the negative intelligence has also been given that there is "nothing wrong with the womb." There is no evidence of rheumatism. Can it be possible that the condition of the uterus is responsible for all this? I confess it seems going a long way round the parish to find the church, but certain considerations definitely pointed to the condition of the pelvic organs as the real and only clue to the trouble.

Let the patient's statement be reviewed :—

First, she told me definitely that when I had supported the uterus with a pessary for a time, the pain in the lumbar

region and buttock was relieved ; this information was not much, perhaps, but it was illuminating as far as it went.

Further, I remembered the fact that some time ago I attended a patient in whom this renal pain was most persistent, and in her case was undoubtedly due to a chronic (gouty ?) metritis. The pain in each case was not increased by pressure, showing that it was not due to deep-seated mischief, but was in fact cutaneous or subcutaneous. This was very significant, and is best demonstrated by pinching the skin over the affected area, when the former is found to be hypersensitive.

Further, I was also impressed by the fact — pointed out by Dr. Head as a matter of frequent observation—that after removal of an ovarian tumour the patient often complains of pain in the loins, which is eased by placing a small pillow in the hollow of the back. Presumably the cause is the sensitive stump of the pedicle. In the case I am using as an illustration, the renal pain was so persistent that I had X-ray photographs taken by Dr. Holland to ascertain if calculus existed, but the result was negative.

Eventually in this case the suffering was so persistent that the uterus was removed, with immediate and permanent relief of the renal pain, thus fixing the dependence of the one on the other.

But to return to Mrs. L. Her pains were so persistent, and the diagnosis to my mind sufficiently clear, that I decided eventually to suspend the uterus by ventrofixation. This was done on October 14, when the following condition was found :—

The uterus was crumpled upon itself backwards, with much kinking of the broad ligament on each side of the fundus uteri, and seemed to fit into the pelvic brim like a stopper, and it required easing out with the points of one's fingers placed beneath it. I never before much believed in what has been termed the "ball valve" action of a retroflexed uterus, but I do now.

Having been lifted up, the uterus was suspended in the usual way.

Incidentally, I may remark that I now used iodine spirit silk and catgut for the first time, and had much reason to be pleased with them.

The ovaries and tubes were normal, but were tucked in and

squeezed by the kinked uterus. The patient made excellent progress, and left the hospital convalescent in fifteen days.

This case illustrated fairly well the five kinds of pain I have enumerated.

(1) *Local*.—The pain *in loco* was not particularly marked, though when pressure was made on the uterus at the junction of the body and the fundus a complaint of it was elicited, a fact which is common in this type of uterine trouble.

(2) *Pressure pain*.—That in the buttock and coccyx was doubtless of this nature.

(3) *Referred*.—That induced and aggravated by vertical posture.

(4) *Resting*.—Partly intrinsic, and partly induced. It is very difficult to say how much of the renal pain was due to an unconscious attempt to relieve the system of its pelvic burden, and thus would come under this head, but that the pain was partly thus induced I am convinced. Moreover, the pressure of the pillow jammed into the hollow of the ribs caused after removal an exaggeration of the resting pain.

(5) *Habit pain*.—This patient, though practically well, has sometimes a reminiscence of her pains. This can hardly be otherwise, seeing hers is a case less than three weeks out of the operating theatre, and I only mention it to complete the illustrations of qualities of pain.

SUPPLEMENTARY REMARKS ON CONDITIONS SIMULATING PERITYPHLITIS.

(1) *Secondary infection of lymphatic glands situated in the right iliac fossa*.—I have not under this head at the moment any specific instances to bring before you, and I speak now rather of a general impression of the truth of the above proposition.

Several instances, however, derived from contact with the very poor and often starved young adult at Roscommon Street, recur to one's mind, and a case will be admitted to hospital in a day or two which, I believe, will turn out as illustrative of the above.

Let me call to mind the anatomy of the deep lymphatic glands of the iliac fossa. There are three groups: (a) The external iliac; (b) the internal iliac; and (c) the sacral.

The first-mentioned are situated just behind the crural arch, and communicate with the femoral lymphatics and lumbar glands.

The next two possess this significant importance, viz., that they are affected in diseases of the bladder, rectum, and uterus. Thus it is not difficult to understand that in an inflamed condition of these glands from one or other cause, a toxin may be induced by the *Bacillus coli communis*, when an abscess will result beneath the appendix, but also beneath the peritoneum. In such case it may be almost impossible to distinguish one disease from the other.

(2) *Septic infection of the right broad ligament* or Fallopian tube, with extension to the right iliac fossa. Innumerable cases of this, of course, occur, and are mostly due to the gonococcus.

When operating upon such cases the appendix should always be searched for, but it may be found normal.

(3) *Ectopic pregnancy*.—It is not necessary to follow this analogy very far, for cases in which the two conditions may be confounded are not very common, and will probably become less so as the means for precision in diagnosis are increased.

(4) *Hæmatoma of the right ovary*.—I mean by this, hæmorrhage distinguished from that due to the rupture of the Graafian follicle. I have not at hand sufficiently precise notes of such a case to give you, though I published one some time ago. I merely remark under this head that an ovary lying so near the cæcum, and having ruptured and produced a clot, the latter may be readily infected by an extension of the infection of the saphrophytes of the cæcum by the *Bacillus coli*.

(5) *Leaking Fallopian tube*.—That a slight discharge of septic material from the fimbriated extremity of an infected Fallopian tube may give rise to symptoms practically identical with perityphlitis I have no doubt. A case of this is at

the moment *sub judice*, and an opportunity may soon arise for deciding whether this particular instance is a type of many of similar character.

The condition of things is due either to appendicitis as the patient has been informed, or to a localised cellulitis due to the cause I have named.

I believe it to be due to the latter, though, of course, the two conditions may and constantly do co-exist.

(6) *Acute torsion of displaced right ovary*.—It seems to me that this condition is commoner than is usually supposed.

I submit that it is allied to an acute torsion of the spermatic cord, which, though not very common, is most definite, and of which the pain is very acute and the sequel serious.

The reason why I think that acute torsion is more common than is generally supposed is the not infrequent purple appearance of an ovary during the course of an abdominal section.

I have no data to give upon this point, but think it very likely that some of the severe sufferings at the catamenia may be due to a temporary torsion of an ovary. Of course this is not seen, because an abdominal operation would never be done at such a time; considering, however, the character of the suffering of an acutely twisted spermatic cord, which we can see, it is very likely that a similar condition takes place with regard to an ovary, which we cannot see.

One case I will mention in brief:—

The patient is aged 28, and has attended for a long time at Roscommon Street for dysmenorrhoea. She is a frail and delicate girl, whose sufferings are intense. There is not a scrap of hysteria about the case. I will not weary you with details, except to remark that there is a prolapsed and very enlarged right ovary. After endless treatment, I advised her mother to have this removed. This was done a few weeks ago. The ovary was found three or four times larger than normal, and filled with cysts. The patient in due course went to Woolton Convalescent Home, and I saw her on Saturday last, when she gave me this information:—

The catamenia had occurred once since the operation. The pain, instead of beginning five or six days before, commenced two hours before. It was only slight, and she thinks it was really more a question of apprehensiveness than anything else. Moreover, it lasted three hours instead of five days. She has gained in weight, and is resuming her occupation of a seamstress, which she has had to lay by for eighteen months. I have no proof that there was temporary torsion in this case, but it is typical of many cases in which I submit that it is likely.

ACIDITY OF THE URINE.¹

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HITHERTO no method, which is not subject to certain objections, has been devised for estimating the reaction of the blood.

At the present moment it is customary to make the calculations by a direct examination of the blood, or blood-serum, by titrating it with various indicators which give a colour reaction. Each method gives different results, so that no two can be compared; and that this is an unsatisfactory procedure is further evidenced by the fact that authors cannot agree as to whether the blood fluids are alkaline, neutral, or acid.

Foster, in his Text-book of Physiology, states that "the reaction of the blood, as it flows from the blood-vessels, is distinctly alkaline." Amongst more recent writers, Ewing, Da Costa and others also affirm the alkalinity of the blood. von Noorden contends that the blood is a neutral liquid, when regarded from the standpoint of the ion theory, and he is supported by Maly, Friedenthal, Hober and others. In the parlance of modern physical chemistry the blood is neutral because it contains no excess of hydroxyl atoms.

Joulie has advanced some excellent reasons from the point of practical medicine for supposing that the blood is really acid. It has been contended that blood-serum

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must have an alkaline reaction, because it will turn red litmus paper blue ; but litmus does not constitute a delicate test. It is well known that solutions of bicarbonate of soda, biborate of soda, and dibasic phosphates will all turn red litmus paper blue—yet they are all chemically acid salts. This method of testing is therefore of no absolute value. The so-called alkalinity of the blood is due to the presence of bicarbonates, which are acid salts ; so that it is clear, in spite of the litmus reaction, that the blood is chemically, and practically, an acid fluid.

Fernet, Meyer, Ludwig and others have proved that the blood always contains free carbon dioxide, which absolutely excludes the co-existence of any free alkali, nor could it contain a neutral carbonate, nor tribasic phosphate. The bicarbonates are the only salts which can exist in the presence of free carbon dioxide ; and it is solely to these salts that the apparent alkalinity of the blood is due. Again, the blood contains in solution the phosphates of calcium and magnesia ; and inasmuch as they are immediately precipitated in alkaline, or even faintly acid media, we have another important reason for assuming that the blood is a definitely acid fluid.

Based on this phenomenon, Joulie has introduced to urinology Boussingault's method of estimating the acidity of solutions by titration with a standardised solution of the succinate of lime ; and he contends that the degree of this acidity is an index as to the acid intensity of the blood. The acidity of the blood is due mainly to the presence of acid phosphates ; but their acid reaction to litmus is masked owing to the excess of the alkali bicarbonates which turn red litmus blue. The bicarbonates are only slightly dialysable ; but, on the other hand, the acid phosphates are freely so ; and it is chiefly due to these latter acid salts that the acid reaction of normal urine is due. Joulie's method has been very largely adopted by French physicians, and they claim to have obtained phenomenal success in the treatment of many diseases, by a therapeusis which is indicated by the degree of acidity of the urine.

He has introduced this method because it is an accur-

ate one, and therefore gives similar results in the hands of different observers, which cannot be said of the old methods of saturating the urine with soda and subsequently titrating with litmus. With litmus there is no definite end reaction, and therefore no two observers obtained equal results with the same specimen. Neither does phenol-phthalein indicate the saturation point satisfactorily, because of the ammonium salts which are always present in variable amounts.

TECHNIQUE.

In estimating the acidity of the urine, to ascertain the general condition of the individual it is necessary to examine a specimen of the morning urine passed before breakfast. This sample will be least influenced by the adventitious excreta from the food, because there has been the longest interval since a meal. The ancients called this urine the "*urina sanguinis*," in contradistinction to that passed during the day, the "*urina cibi*."

Four ounces of this morning urine must be passed into a perfectly clean vessel, and from thence poured into a bottle and sent immediately to the laboratory. When, for any cause, the investigation cannot be made within two hours of emission, it is necessary that the urine should be mixed with a suitable antiseptic at the time of passing; otherwise bacterial fermentation will take place, with consequent liberation of ammonia, which will neutralise the acid.

On the arrival at the laboratory, the urine is tested with blue litmus paper to make sure that it is acid. If acid, proceed to filter it. If the filtrate is turbid, the turbidity will probably be due to bacterial infection, and such specimens will be useless for this investigation, and the patient must undergo a course of medication with urotropine or other urinary antiseptic, until his urine is sterilised. In passing, I may mention one cannot but be impressed by the large percentage of female patients who suffer from infected urine.

Measure 10 cc. of filtered urine into a test tube. Add to this urine a solution of sucrose of lime of known titre from a graduated burette drop by drop, shaking gently all the time,

so as to get a thorough mixture. Each drop of the sucrate in falling into the urine produces a precipitate of tricalcium phosphate, which dissolves on agitation as long as there is sufficient acid in the urine to change this into monocalcium phosphate, which is a soluble salt. As the urine becomes more saturated, the precipitate formed by the sucrate disappears more slowly. At last a point is reached at which it no longer disappears. As soon as the precipitate is permanent, one reads on the burette the amount of sucrate which has been employed. The acidity of the 10 cc. of urine is then determined by multiplying the quantity of sucrate (S) employed by the titre (Ts), and as 10 cc. are $\frac{1}{100}$ part of a litre, one would obtain the acidity of the litre (A) by multiplying the result by 100. The following formula will hold good :—

$$A = Ts \times S \times 100.$$

It is not claimed that this method estimates the total quantity of acids present, but that it represents the power which the urine has of dissolving the tricalcium phosphate, which is the physiological acidity, the practical medical acidity.

Having ascertained the degree of acidity per litre of urine, the next question to determine is, What is its physiological or pathological significance? In solving this question one naturally asks, What is the normal acidity of a litre of urine? But it soon becomes apparent that the composition of the urine is a very variable factor, both when we compare the urine of several persons in health, and also in the same person from day to day, and even hour to hour.

Water is the most abundant element in urine, since it contains more than 950 parts per thousand. It is sufficient for the subject to drink more or less freely to cause the liquid and dry constituents to vary; and if one takes the precaution of drinking regular quantities of liquids, yet the urinary water will vary, according to the variations in the surrounding temperature and hygroscopic conditions, the amount of exercise taken, and the amount of water evacuated by the bowels. The other elements comprising a litre of urine are also variable, and it is absolutely impossible to determine what is the normal litre of urine.

To demonstrate the great variability in the quantity of urine excreted in twenty-four hours, I have measured the daily output of a healthy man with the following result. During this time he was drinking an equal quantity of fluid per diem :—

Daily Quantity of Urine Excreted by a Healthy Man.

Quantity of urine in cc.	Quantity of urine in cc.	Quantity of urine in cc.
July 7 .. 1,700	July 10 .. 1,870	July 13 .. 1,310
„ 8 .. 1,170	„ 11 .. 1,750	„ 14 .. 1,560
„ 9 .. 1,990	„ 12 .. 1,990	„ 15 .. 1,290

Quantity of urine in 24 hours.	Quantity of albumin in grammes in 24 hours.	Percentage of albumin.
July 8 .. 1,170	20	1·7
„ 12 .. 1,990	20	1·0

It will be noted that the quantity of urine passed on July 12 was nearly double that of July 8.

In order to show what little value can be attached to the percentage analysis of the ingredients of the urine, let us assume, for sake of argument, that the man was passing per diem 20 grammes of albumin. If a percentage estimation of the albumin was made on July 8, the result would be 1·7 per cent., and on July 12 1 per cent., and yet the daily amount was the same. The percentage analyses would have misled one to suppose that there was a much larger excretion of albumin on the one day than on the other. We must conclude, therefore, that analyses expressed as percentages are of doubtful value. Having recognised this, uro-physiologists have had recourse to examining the whole of the urine excreted in twenty-four hours.

In private practice this method has the great disadvantage of the difficulty of collecting a twenty-four hours' sample; also the difficulty of conserving the sample so that no chemical changes can take place. It is also obvious that

we shall not obtain as much urine in a specified time from a dwarf as from a giant.

Owing to these and other reasons no two authorities agree as to the composition of the twenty-four hours' normal urine; and it is now recognised that "there is not such a thing as a definite normal urine, but there is a urine normal to each individual."

This latter observation obviously is no solution to the difficulty, as, in practice, people in good health do not have their urine examined.

Yet it is evident that there must be something common in the composition of the urine of healthy individuals, when one considers that the laws of life are the same for all. The work of the living cells cannot vary in individuals; what does vary is the number of living cells and their functional activity, and, in consequence, the absolute quantity of the excreta. The nature of these excretions, and their relative proportion to one another, must remain the same for all healthy individuals, whatever their age and sex. The normal state of the urine consists, then, in the relative proportion of the different constituents rather than in the absolute amount of each ingredient.

Professor Huguet says, with regard to this question: "The true stability of the urine is to be found in the proportion of its constituents; anomalies must be sought in the relative proportions of these bodies. The quantity of the urinary excretion is a measure of the work done; the relative amount of the constituents denotes the quality of that work. In the human machine quality is of more value than quantity." Having ascertained the degree of acidity per litre of urine, we now require to discover the semiological importance of it. As we have seen above, owing to the varying amount of water in the urine, the amount of acidity per litre tells us nothing. Here is a striking example: two specimens of urine were taken from the same individual. The first specimen was passed on awakening in the morning, and the second two hours after the midday meal.

	<i>Specific Gravity.</i>				<i>Acidity per litre.</i>	
1st Specimen	1015	0.505.
2nd Specimen	1005	0.308.

One is apt to conclude that the second specimen is less acid than the first, and this would be in conformity with the well-known theory of digestion, viz., that the stomach withdraws the HCl from the blood, and the urine, therefore, becomes less acid.

But this conclusion would be wrong, for the second specimen is in reality more acid, and the cause of it will be explained later on. If one takes the specific gravity of the two specimens, it will be found that the first was 1015 and the latter 1005; the second, therefore, contained less solid matter, and equal volumes were therefore not at all comparable.

The density of water being 1000, it results that the dry matter contained in each specimen of urine can be represented by the increase in the specific gravity of the urine over that of water. In the first case the figure is 15, and in the latter 5. These numbers do not represent the weight of the solids in a litre of urine, but they are mathematically proportional to that weight, since they represent the influence of the dry matter on the density.

In order to compare the acidity of the two urines it is necessary to eliminate the influence of the water; and to do this we compare the degrees of acidity for equal amounts of solids as represented by the increase in specific gravity over that of water, and express this as a percentage.

Thus, if 15° excess of density over water gives an acidity of 0.505, then an excess of density equal to 100 would give:—


$$\frac{0.505 \times 100}{15} = 3.36 = (\text{R.A.}) \text{ ratio of acidity.}$$

For the second specimen the same reasoning will give:—

$$\frac{0.308 \times 100}{5} = 6.16 = (\text{R.A.}) \text{ ratio of acidity.}$$

The second specimen, whilst having a lesser degree of acidity per litre, was really more acid, as shown by eliminating the increase of water.

The reason of this increase of acidity was because a dose of phosphoric acid had been given at the mid-day meal.



This example is a good demonstration that the theory of urinary ratios is sound ; and that in eliminating the effect of the water we are enabled to draw a conclusion exactly the reverse of what we should have done in comparing the acidity per litre of urine.

It is convenient to generalise this method, and in the same way it is possible to calculate the ratios of phosphoric acid, urea, uric acid, and any other ingredients of urine which interest the clinician.

In proceeding thus, the chief corner-stone is the excess of the density of the urine over distilled water taken at 15° C. This is called E to simplify matters. It is essential that the specific gravity should be gauged by means of a specific gravity balance.

If the specific gravity of the urine is taken at any other temperature, then the necessary correction must be made, for the specific gravity of water falls as the temperature rises.

In estimating the R.A. of the urine, it is unnecessary to know the amount of water, or even the absolute quantity of the constituents present in a litre of urine. The calculation is also independent of the absolute amount voided in twenty-four hours ; and, moreover, no account need be taken of the size or weight of the individual.

The calculation simply gives the relative proportion of the different constituents of the urine excreted at the time the particular specimen was passed.

The following symbols are convenient in making the calculations :—

E = Excess of density of urine over specific gravity of water at 15° C.

S = Amount of sucrate of lime employed.

Ts = Titre of the sucrate of lime.

A = Acidity of urine, per litre, in terms of H_2SO_4 .

$A = S \times Ts \times 100$

$R.A. = \frac{A \times 100}{E}$

It has been found that in healthy individuals the R.A. lies between 4 and 5. The average of a large number of estimations works out at 4.55. A ratio above 5 would therefore be considered as hyper-acid, and below 4 as hypo-acid. In practice it will be found that the R.A. in each individual is

not a fixed point, but fluctuates more or less, and consequently it is necessary to make several observations to determine the average R.A. for each individual.

The acidity of the normal urine depends chiefly upon the presence of phosphoric and sulphuric acids, but also in a lesser degree to uric, oxalic, and other organic acids. These acids are derived from the digestion and absorption of alimentary substances, and also from the catabolic changes in the cells of the body; that is to say, their origin is exogenous and endogenous. The aliment and the metabolism of the tissues furnish also a large quantity of bases which enter into chemical combination with acids and neutralise more or less their acid reaction. The degree of the neutralisation depends upon the available relative quantities of each.

In a healthy man there is always a predominance of the acids, and consequently the urine gives an acid reaction. In pathological conditions other acids of an organic nature—lactic and acetic—are formed in large quantities; and if there are not sufficient fixed bases (K, Na, Ca, Mg.) to neutralise them, they still have the capacity, up to a certain limit, of uniting with the NH_3 , which is derived from the metabolism of proteins, and which otherwise would be converted by the liver into urea. If this limit is passed, then the urine becomes hyper-acid.

On the other hand, in those conditions where the liver is defective in its function of converting the NH_3 into urea, all the acids may be neutralised by this NH_3 , and then the urine becomes neutral, or even alkaline.

The reason that the urine of herbivora is alkaline is owing to the nature of their food, which always contains an excess of alkali over acids. On combustion their food yields an alkaline ash, whereas flesh food gives an acid ash, cereals also yield a slightly acid ash.

If man be fed on purely vegetarian diet, the excess of alkalies is so great that the phosphoric and sulphuric acids are fully neutralised, and there is a surplus of alkalies which appear as carbonates in the urine, and make it alkaline.

The administration of the mineral acids, such as P_2O_5 ,

H_2SO_4 , and HCl , increases the acidity of the urine, because they are incombustible. When organic acids, or vegetable acid salts, such as acetates, citrates, and tartrates, are administered they undergo combustion, whereby the CO_2 is liberated and escapes by the lungs; but the alkaline base is excreted by the kidney, and thus tends to reduce the acidity of the urine. Such organic acids as benzoic and lactic are incombustible, and therefore raise the acidity of the urine.

Estimations of the R.A. in individuals suffering from all kinds of diseases show that the condition is generally one of hypo-acidity.

Joulie gives the following results of 2,744 estimations:—

Urine normal in 17·82 per cent.

Urine hyper-acid in 8·13 per cent.

Urine hypo-acid in 74·05 per cent.

The principal cause of this hypo-acidity is due to failure of the hepatic function. One of the functions of the liver is the synthesis of urea from the NH_3 derived from the decomposition of the albuminoids. In such diseases as hepatic congestion, cirrhosis, and yellow atrophy, this function is in partial abeyance, with the result that less urea and more NH_3 is excreted by the kidneys. Now, urea cannot neutralise the acids of the blood, and therefore does not concur in the production of the hypo-acidity; but, on the other hand, a diminished amount of urea is accompanied by an increase of NH_3 , and therefore a diminished acidity.

Another cause of hypo-acidity is to be found in taking a too-abundant vegetable diet, especially the acid fruits.

The continued use of alkaline mineral water and drugs will, of course, also raise the hypo-acidity of the urine.

Hyperchlorhydria and vomiting, especially if the vomit contains much HCl , will cause hypo-acidity, owing to the blood being depleted of acid.

Lastly, any cause which increases combustion will tend to bring about hypo-acidity, such as muscular and intellectual activity, and also the bacterial infections which bring about febrile reaction.

Hypo-acidity, when established, tends to increase the

combustions, and thus a vicious circle is produced. This is said to be brought about by the chemical action of the alkali on the blood, which renders the fluid more liquid—less viscous—so that it circulates more quickly, owing to the diminished resistance in the capillaries, and the heart's action accelerates. The increased combustion also tends to elevate the temperature, and thus is explained why fever is attended with rise of temperature and tachycardia.

Increased acidity of the blood produces a contrary effect ; it tends to increase viscosity and even coagulability of the blood, and thus the circulation and consequent combustion are retarded.

Lastly, if the acidity of the blood become sufficiently reduced, then the oxalate of lime and phosphates of lime and magnesia derived from alimentation are no longer maintained in solution, but become precipitated. In normal blood these salts are kept in solution, owing to the CO_2 which is present in excess, and maintains the phosphates in the state of acid phosphates, which are quite soluble and dialysable, and, consequently, readily eliminated by the kidneys. If the acids become neutralised to a certain degree by the NH_3 , which is derived by catabolism of the proteins and which ought to be converted into urea, then the acid phosphates are converted into neutral or basic phosphates, and, being precipitated, are circulated in the blood as sand. This sand is not dialysable, and therefore cannot be excreted by the kidneys, but will be carried by the capillaries to certain organs, where it will cause more or less congestion and stasis of the blood, dilatation of the capillaries, and painful pressure on the neighbouring nerves under the influence of the cardiac pressure.

More or less painful scleroses will thus be formed in the various organs attacked, whether it be in the liver, heart, spinal cord, &c. : calcareous degeneration in the vessels, cataract in the crystalline lens, arthritis in the joints.

It is evident that the intensity of these diseases will depend upon the degree of the acidity of the plasma. That this is no mere hypothesis, but a theory well based on fact,

is well demonstrated in the case of herbivorous animals which receive by alimentation large quantities of phosphate of lime; but as their urine is constantly alkaline, not a trace of it, nor of any other phosphate, is excreted by the kidneys.¹

The abundance of salts of lime is such in the alimentation of horses that the alkaline phosphates are converted into phosphates of lime, which is insoluble in their plasma. and in consequence cannot pass by dialysis through their kidneys. In spite of their robust constitution, these animals have only a comparatively short efficient career, owing, in great measure, to troubles arising from the deposit of the phosphate of lime in their various tissues. Everyone knows how horses are prone to the formation of hard, bony growths in the bones, joints, and muscles, known as splints, spavin, &c. These tumours consist principally of the phosphate of lime. It is a great mistake to suppose that it is only horses and other herbivora which are subject to phosphatic gout, for there are well-authenticated cases of this disease in man. Analyses of tophi have revealed the fact that at times they contain as much as 42 per cent. of phosphate of lime and only 49 per cent. of urates. One can only explain such formations as these as being caused by alternate states of hyper- and hypo-acidity, which precipitates the urates and phosphates in alternate layers. The deposit of phosphate of lime is also the chief pathological feature of chronic rheumatoid arthritis. In the rare disease known as phosphypostasis, the body is permeated with tumours varying in size from a few grains of sand up to a large pea, and composed exclusively of the phosphate of lime.

This disease occurs in shepherds who have lived entirely on vegetarian diet.

It is evident that to raise the acidity of the blood it is useless for this purpose to administer combustible organic acids; for, as we have already seen, they will further reduce

¹ Later analyses of the urine of herbivora have revealed the fact that phosphoric acid is excreted by the kidneys in very small quantities, amounting to about 0.5 per cent. In the carnivora it amounts to 80 per cent. or more.

the acidity. It is therefore necessary to have recourse to a mineral acid which can traverse the economy without losing its acid properties. The acids HCl , H_2SO_4 and HNO_3 coagulate albumin, and therefore are not readily absorbed, nor are they well received by the stomach unless given in very small quantities; it is therefore impossible by means of these acids to relieve a hypo-acidity which is at all pronounced. On the other hand, phosphoric acid, if well diluted, does not coagulate albumin, is very diffusible, and can be taken in very large doses without causing any discomfort. And it is further well indicated, inasmuch as it is present in considerable quantities, combined with various bases, in all the tissues of the body. It is also an important constituent of the fluids which bathe the cells within and without, and also of the framework of the cells, and gives them solidity and resistance. It occurs as phosphate of lime in the bones, phosphate of soda in the plasma, phosphate of potash in the nervous system, and phosphate of iron in the red blood-cells, and phosphate of magnesia in the muscles.

Great importance has been attached to the necessity that a proper diet should contain certain proportions of nitrogen, hydro-carbon, and carbo-hydrate, but the amount of the phosphates has been much overlooked. It is estimated that the daily loss of phosphoric acid in the urine amounts to 3 grammes, and in the fæces 1·5 gramme, which makes a total of 4·5 grammes. If these losses are not duly replaced by suitable food, the economy must soon suffer therefrom. The absorption of phosphoric acid from the aliment depends upon the degree of acidity of the blood, and this is markedly demonstrated by the fact that during lactation the young of herbivora are able to absorb the whole of the phosphoric acid in the milk; the milk being animal food, it yields an acid ash, and therefore for the time being their urine has an acid reaction.

It is not fully known what influence the healthy sexual glands have upon the absorption and retention of phosphoric acid, but it is an indisputable fact that in cases of osteomalacia, after removal of the ovaries, there is a

well-marked retention of earthy phosphates, whereby the skeleton regains its normal rigidity; and it is a question whether the obesity which frequently occurs after oöphorectomy and castration is not of the same character.

The results obtained in cases of osteomalacia by the administration of thyroïdin and adrenalin, would also indicate that the thyroid gland and the suprarenal capsule have an important influence on phosphorus retention in the economy.

The phosphorus of the food is always introduced as phosphoric acid. In large measure it occurs as an inorganic acid, but some of it is in an organic form, such as lecithin and nuclein. The organic compounds are largely decomposed by the digestive juices, and, after oxygenation, are excreted as inorganic acids. The phosphorus of the food reaches the general circulation through the radicles of the portal system; and after its conversion into inorganic acid it is chiefly excreted by the kidneys, but also in small measure by the intestine.

Observation made on the fasting man Cetti showed that he voided 20 grammes of fæces per diem; whilst one-third of this excretion consisted of bacteria, the remainder was found to be composed of phosphoric acid, lecithin, cholesterin, neutral fats, fatty acids, soap, lime, magnesia, and iron.

Byasson, Joly, and others have drawn attention to the fact that nervous tissues are much more rich in phosphoric acid than muscular tissues, and consequently an intellectual worker loses much more phosphoric acid than a manual labourer. More recent researches have rather discredited this statement. Neurasthenia is soon established in individuals who are undergoing prolonged intellectual strain and at the same time are receiving a diet deficient in phosphates. In the early stages of neurasthenia there is usually established a condition of marked phosphaturia, which is dependent upon some obscure incapacity of the cells to retain their normal amount of phosphoric acid. Later on, when the tissues are impoverished, the cells retain it with an abnormal tenacity, and consequently there is a diminished excretion of it in the urine.

THERAPEUSIS.

By far the most useful agent for raising the acidity of the urine is phosphoric acid. To arrive at this result experience shows that in certain cases very large doses must be exhibited. This can be safely and conveniently effected by administering it in gradually increased doses well mixed with water, and taken either with, or immediately after, meals. Joulie has taken as much as 27 grammes of the officinal acid per diem without the slightest inconvenience. It should be diluted with 1 to 0·5 per cent. of water.

Acid phosphate of soda would be indicated where there is a deficiency of phosphoric acid accompanied by a mild hypo-acidity. It is usually given in doses up to 5 grammes per diem. The ratio of phosphoric acid (R.P.) to the excess of density of urine over water in individuals of good health varies between 11 and 11·5; but in disease there are great fluctuations. When it is increased it is termed hyper-phosphatia, either real or apparent, and when diminished, we call it hypo-phosphatia, either real or apparent.

In normal conditions the ratio of the acidity (R.A.) to the ratio of the phosphoric acid (R.P.) is equal to 2·45. This is expressed by the following symbols :—

$$\frac{\text{R.P.}}{\text{R.A.}} = 2\cdot45.$$

This is generally known as Joulie's coefficient, or the acido-phosphoric ratio; and it is this which assigns to phosphatia its true character. When this coefficient is increased it indicates that there is hyper-phosphatia, but when decreased there is hypo-phosphatia; for it is evident that the phosphoric acid, owing to combination with bases, has lost some of its physiological acidity and is being excreted as a neutral phosphate.

Joulie found that the following synoptic table represents the most frequent types of urinary analysis :—

- | | | |
|----|--|--|
| 1. | $\frac{\text{R.P.} < 11\cdot17}{\text{R.A.} < 4\cdot55} = 2\cdot45$ normal | .. Metabolism increased. |
| 2. | $\frac{\text{R.P.} > 11\cdot17}{\text{R.A.} > 4\cdot55} = 2\cdot45$ normal | .. { Metabolism diminished.
Demineralisation.
Pre-arthritic state. |

3.	$\frac{R.P. < 11.17}{R.A. < 4.55} = < 2.45$ lowered	..	{ Metabolism increased. Fermentative dyspepsia. Commencing arthritism.
4.	$\frac{R.P. < 11.17}{R.A. < 4.55} = > 2.45$ increased	..	{ Phosphaturia, real. Metabolism increased. Hyperchlorhydria.
5.	$\frac{R.P. < 11.17}{R.A. > 4.55} = < 2.45$ lowered	..	{ Metabolism diminished. Fermentative dyspepsia. Advanced demineralisation. Arthritism.
6.	$\frac{R.P. > 11.17}{R.A. < 4.55} = > 2.45$ increased	..	{ Phosphaturia, real. Hyperchlorhydria. Metabolism increased. Demineralisation commencing.
7.	$\frac{R.P. > 11.17}{R.A. > 4.55} = > 2.45$ increased	..	{ Metabolism diminished. Demineralisation commencing. Fermentative dyspepsia.

(1) The phosphates here are diminished, but as they form the greater part of the mineral portion of the urine the organic portion must be increased; and if increased, must be the result of increased metabolism.

(2) The two ratios are increased, and therefore the organic portion of the urine is diminished, and this is the result of diminished metabolism, and there is a tendency to demineralisation.

(3) There is hypo-phosphatia. Metabolism is intensified, for the quantity of organic matter is increased. The R.P. is relatively more lowered than the R.A., therefore organic acids must be present, and clinical observation generally indicates that they are formed by fermentative dyspepsia.

(4) Although there is apparent hypo-phosphatia, yet there is real hyperphosphatia, the result of excessive oxidation of tissues rich in phosphates, notably of the nervous tissue; there is frequently a coincident hyperchlorhydria, which may be accompanied by tuberculosis.

(5) Hyper-acidity is here associated with hypo-phosphatia. Metabolism is diminished, and the excessive acidity is due to organic acids which result from fermentative dyspepsia. Demineralisation is advanced. This is the most frequent type found in arthritis.

(6) Hyper-acidity, with hyperphosphatia. Metabolism is exaggerated. Demineralisation commencing. This type is common in pulmonary tuberculosis.

(7) Hyper-acidity with hyper-phosphatia; metabolism is diminished; commencing demineralisation; fermentative dyspepsia. This is the first step to rheumatic and gouty arthritis.

The following table is a convenient one for making a report of urinary analysis:—

Report on ANALYSIS of Urine from M....., voided in the morning fasting.

Amount per Litre.

	Examined.	Normal.
Specific gravity at 15° C.		1017·8
Excess of solids over water		17·8
Physiological acidity in terms of H_2SO_4		0·849
Total phosphoric acid in terms of P_2O_5		2·083
Chlorides		6·865
Urea		18·75
Uric acid		0·416
Sugar in terms of glucose		0
Albumin		0

Percentage according to Joulie's Coefficient.

	Examined.	Normal.
Ratio of acidity to excess of solids over water		4·55
„ phosphoric acid to excess of solids over water		11·17
„ urea to excess of solids over water		100·59
„ uric acid to excess of solids over water		2·23
„ sugar to excess of solids over water		0
„ albumin to excess of solids over water		0
„ phosphoric acid to ratio of acidity		2·45

The chief causes of phosphaturia are as follows:—

(1) Introduction into the diet of an excess of phosphates exceeding the wants of the economy. (2) Excessive oxidation of the tissues, especially of those rich in phosphates. (3) Anything which excites diuresis, such as excessive drinking of water, drugs, pathological conditions, such as diabetes.

The causes of hypo-phosphatia are as follows:—

(1) A diet poor in phosphates. (2) A more or less prolonged phosphaturia which has impoverished the tissues. (3) Hypo-acidity of the blood, which diminishes the solubility of the earthy phosphates; they are rendered undia-

lysable by the kidneys, and become locked up in the tissues and joints. (4) Renal disease owing to defect in the excreting power of the kidney.

Treatment.

It is important that patients suffering from phosphatia should partake of a diet rich in phosphates. The following articles of diet are enumerated in the order of preponderating percentages: Gruyere cheese, haricot beans, mutton, beef, white cheese, eggs, cereals and milk. Cerebos salt contains 4 per cent. of phosphates, so is an important adjunct to the diet from the point of view under consideration. With regard to drugs, phosphoric acid and its salts, according to the degree of acidity of the urine, are all useful.

If the acidity is normal, then it is important that the phosphate should be given in neutral form. The British Pharmacopœia does not contain such a salt, but Joulie has introduced such an one under the name of sodium sesquiphosphate. Up to the present this body has not been obtainable from English manufacturers, but Mr. Martindale, of 10, New Cavendish Street, has prepared some for me. It has the empirical composition $\text{Na}_3\text{H}_3(\text{PO}_4)_2$, and may be viewed as an equimolecular compound of Na_2HPO_4 with NaH_2PO_4 , i.e., a loose compound of disodium and monosodium phosphates, possessing a neutral reaction in solution. It has scarcely any alkaline flavour; it is usual to give 2 grammes per diem, in divided doses. It is a moot point at present whether there is any advantage in administering the phosphates in an organic form. With regard to iron, the matter has been definitely settled that so long as it is not administered as a combination with nucleo-proteid, there is no difference observed in the effect produced by organic and inorganic preparations of iron.

Until recently it has been contended that inorganic iron administered by the mouth is not absorbed. The mistake arose from the fact that most of it could be re-collected in the fæces. But it has been proved by micro-chemical tests that after administration it can be detected in the body tissues, and that it is subsequently eliminated mainly by the intestinal walls.

But organic iron given in combination with nucleoproteids is indisputably more rapidly absorbed and acts as a more powerful stimulus to the organs which make the blood; in the same way it is contended that an organic phosphorus in combination with nucleoproteid acts as a more powerful stimulus in regenerating and building up the body tissues. Everyone is agreed that such organic preparations of phosphorus are absorbed practically without residue; but with regard to the inorganic forms only up to 80 per cent. is absorbed and excreted by the kidneys.

One of the most extensively used preparations of these organic forms of phosphorus is the proprietary article known as Sanatogen. It consists of glycerophosphoric acid and pure casein. The phosphorus contained in it is entirely in the organic form, and occurs as phosphorus in combination with albumen, and as a glycerophosphate. On analysis it yields 1.32 per cent. of phosphorus and 13.14 per cent. of nitrogen.

The chief articles of diet in which phosphorus occurs in combination with albumen are: eggs, thymus, fish-roe and calf's brain.

HYPER-ACIDITY.

Hyper-acidity is chiefly caused by acid fermentation of the food, which arises from deficient excretion of gastric and other digestive fluids. In consequence of this, the food is delayed in the stomach beyond the physiological period, owing to failure of digestion. This delay gives time for the development of ferments, with the formation of organic acids, such as acetic, lactic, formic, &c.

Another potent cause of hyper-acidity is the decomposition of the body fats due to starving and diabetes; oxybutyric acid and its derivatives are formed in large amounts thereby. These acids are absorbed more or less into the blood, and render it more viscous, and thus slow the circulation, which retards oxygenation. The vitality of the organs becomes reduced owing to the circulation of toxic products, and the elimination of metabolic products becomes difficult; and owing to the excessive acidity, the

urates are precipitated and deposited in the tissues, and thus the arthritic diathesis is established.

The blood having thus become impoverished, the circulation accelerates, and oxidation becomes more active. The assimilation being defective, owing to retarded digestion, the individual is unable to repair his losses, and thus emaciates.

This change from hyper-acidity to hypo-acidity takes place more or less rapidly according to the circumstances, more or less favourable. It takes place when the oxidation becomes excessive and is determined by the losses which alimentation is unable to replace, owing to the dyspepsia.

It may be well in passing to draw attention to the vicious practice of giving bicarbonate of soda to neutralise undue gastric acidity. It is quite impossible to estimate the amount necessary; and if too large a dose be given, the excess passes into the blood, where it produces an alkaline effect under conditions which, perhaps, are undesirable. As a substitute, carbonate of lime or magnesia is far preferable; for the excess, being insoluble, is evacuated by the bowels.

Treatment.

The specific gravity of hyper-acid urine is often much above normal, and consequently there is frequently a deposit of urates. It is generally necessary for patients suffering from acid dyspepsia to pay attention to this feature of their urine; otherwise they will, sooner or later, succumb to the arthritic diathesis—practically to gout and uric acid gravel.

There is no gainsaying that gouty individuals suffer from retention of uric acid, which in measure, at least, is due to renal insufficiency. In 1904 I read a paper before this Society, mentioning that it is a fact that uric acid is not a material irritant to the tissues either experimentally, physiologically, or pathologically. More recent investigations have shown that uric acid by no means always exists as a salt, but that it frequently occurs as a firm combination with some unknown substance, which is probably toxic. If there is not sufficient water to keep the uric acid in solution, neither is there sufficient to dissolve and eliminate its toxic

compounds, and therefore they become locked up in the tissues of the body. Generally, therefore, a high specific gravity, with deposit of urates in the urine, is an indication for drinking more fluid ; and the specific gravity should be maintained under 1020, and, if necessary, the patient should be supplied with a urinometer so as to regulate the quantity of fluid necessary for him to drink. The best time for drinking the water is, of course, while fasting, say an hour before meals, and it should be taken as hot as possible. Before the meal becomes due the water will have been expelled from the stomach in gushes, which serves to cleanse the stomach walls and duodenum. If taken at this period it has the further advantage of not diluting the gastric secretion, and thus interfering with digestion. The alkaline mineral waters are said to be very effective in reducing the acidity of the urine and effecting the solution of uric acid deposits ; but during their exhibition it is very necessary to make periodic estimations of the urine so as to regulate the dose.

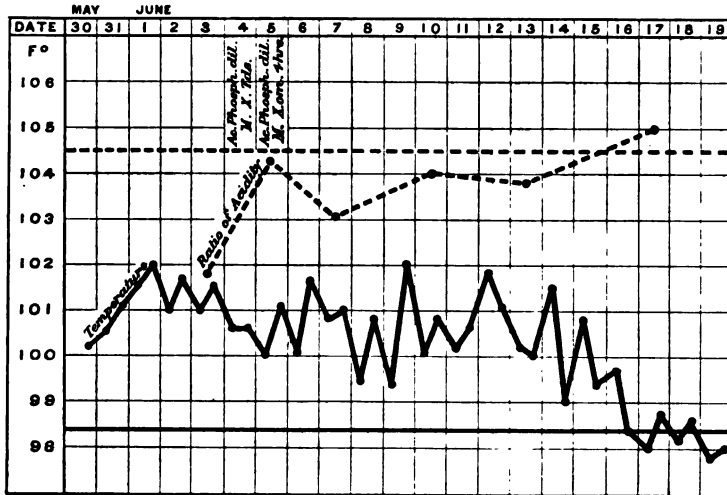
The mineral waters most highly esteemed for this purpose are Fachingen, Vichy, and Vals.

If the hyper-acidity is only moderate, it may be necessary to give the alkaline phosphate of soda. It is a very much easier matter to lower the acidity than to raise it.

The semiological values attached to these urinary ratios are the result of most ingenious deductions ; but one can see reasons for not accepting them fully, and clinical observation confirms that some of them are hardly tenable. But, on the other hand, after very little experience, one is impressed with the great general value of the new system of analysis, as affording a basis for the successful treatment of certain diseases. To give you a little insight into the practical utility of the method, I will now give you a few examples extracted from my case-book :—

H. C., male, aged 17, suffering from acute rheumatism affecting the knees, ankles, shoulders and wrists. Phosphoric acid treatment was commenced on the seventh day of the disease. After two days' treatment the pain had greatly subsided, and no fresh involvement of the joints took place from that date, although

the fever continued to run its course. On the third day of phosphoric treatment the patient was quite free from pain, and had so far recovered that he was able to move about quite freely in bed. There was no heart complication, and this was more noteworthy when we consider that his age was 17 years, and that this was his second attack of rheumatic fever—two conditions which predispose to carditis. It will be noted in the accompanying chart that



the administration of the P_2O_5 was followed by an immediate and continuous rise in the R.A., and that it approached normal at the same time as the defervescence of the temperature and the establishment of convalescence.

J. N., joiner, aged 38, under the care of Dr. Blackley, suffering from diabetes mellitus, excreting 150 grammes of glucose per diem; duration of the disease, eighteen months. The phosphoric treatment was begun on May 21, 1907, when the R.A. was 1.49, and the R.P. 2.89. In spite of large doses of the acid the R.A. only rose to 2.52, but the R.P. was raised to 8.38 (see analysis No. 1). This is, of course, proof that the acid was absorbed into the general circulation, and that the body tissues were being bathed with plasma having a much richer phosphorus content; but as the excretion of P_2O_5 was still defective, I determined to increase it by the addition of Sanatogen. On June 25 the phosphoric acid was discontinued, but the Sanatogen was persevered

ANALYSIS No. I.

Patient's Name.—J. Nettle.*Disease.*—Diabetes mellitus.*Analysis of the Urine.*

Date.	Specific gravity.	Acidity.	R.A.	R.P.	Coefficient of Joulie.	Quantity of P_2O_5 in 24 hours.	Body weight.	Treatment.
17,5,07	1041.2	0.508	1.45	2.8	1.9	—	9st. 11lb.	—
18,5,07	1031.6	0.412	1.49	2.89	1.9	—	—	—
21,5,07	—	—	—	—	—	—	9st. 11lb.	Ac. phos. dil. m.vj., t.d.s.
25,5,07	1041.4	0.499	1.58	4.45	2.8	2.49	—	Ac. phos. dil. m.xij., t.d.s.
1,6,07	1040.3	0.629	1.86	5.04	2.7	—	9st. 8lb.	Ac. phos. dil. m.xviii., t.d.s., Sanatogen 3j., t.d.s.
8,6,07	1038.4	0.381	1.4	5.14	3.6	—	9st. 4lb.	Ac. phos. dil. m.xxx., t.d.s., Sanatogen 3j., t.d.s.
15,6,07	1039.9	0.544	1.58	4.66	2.9	—	—	Ac. phos. dil. m.xl., t.d.s., Sanatogen 3j., t.d.s.
22,6,07	1037.8	0.592	2.13	6.47	3.0	4.72	9st. 5lb.	Stopped. Sanatogen 3j., t.d.s.
29,6,07	1037.8	0.753	2.52	8.38	3.3	4.15	—	Stopped. Sanatogen 3j., t.d.s.
6,7,07	1034.2	0.621	2.37	8.01	3.3	—	9st. 8lb.	Uranium nitrate 3x, Sana- togen 3j., t.d.s.
13,7,07	1029.6	0.126	0.59	6.57	11.1	—	—	—

with during the whole time of his stay in hospital. During the treatment the condition of the patient improved immensely; the thirst disappeared, and the tongue, which had been very raw-looking, became much more normal in appearance. On July 9 the house physician's report says that "the patient is feeling very fit." The very material improvement in the patient's condition is best indicated by noticing the increase of weight of 7 lb. during the seven weeks' treatment. There was no difference in the amount of glucose excretion. Joulie has recorded a number of cases of diabetes in which, after some three or four months of phosphoric treatment, the glycosuria suddenly and completely disappeared, and did not return.

I was much struck in this case that there was no additional increase of the R.P. when the Sanatogen was added to the treatment. It is well established that nearly the whole of the phosphorus is absorbed from such an albu-

minous preparation as Sanatogen. Why, then, was not the excretion of the phosphoric acid increased? Plainly, the answer is that it was retained by the economy and used up in building up fresh tissue, as proved by the increase of weight.

I then made an experiment on a healthy man to test whether phosphoric excretion would be increased whilst taking Sanatogen. Previous to making the experiment, his phosphoric urinary excretion was estimated for six consecutive days. The daily average yield amounted to 3·16 grammes. He was then given ziii of Sanatogen per diem for five days, and the average daily urinary excretion during that period amounted to 3·25 grammes; the difference in the daily P_2O_5 excretion during the two periods was an increase of only 0·09 gramme in the latter. During the latter period the increased daily P_2O_5 intake, owing to the ingestion of Sanatogen, amounted to 0·352 gramme. It seems reasonable to suppose that 0·262 gramme was retained by the economy, owing to a condition of phosphorus hunger, in spite of his apparent condition of health.

A second experiment was subsequently made. The R.P. was estimated for six consecutive days in a man suffering from phosphatia; this estimation proved to be 17·32. He was then given Sanatogen zj . t.d.s. for five days, and the average R.P. during that period amounted only to 16·74. In this case it would appear that not only was all the P_2O_5 of the Sanatogen retained in the body, but that also some of the alimentary P_2O_5 as well.

These experiments have been confirmed in other provers.

In cases of phosphaturia, accompanied by malnutrition, especially in cases of neurasthenia, Sanatogen is a most potent factor in building up the body tissues. I have proved it time after time.

Take, for example, a lady aged 31, who had been suffering from neurasthenia for three years. On July 18 the urinary analysis gave the following result:—

$$\frac{\text{R.P.} = 11\cdot36}{\text{R.A.} = 5\cdot12} = 2\cdot2. \quad \text{Body weight, 8 st. } 3\frac{1}{2} \text{ lb.}$$

On September 12, that is, eight weeks afterwards, she scaled 8 st. 10 lb., and her general health improved in every way.

These experiments tend to confirm my clinical experience that the administration of Sanatogen is attended by its rapid absorption and retention in the economy, and that this is associated with a stimulation of the assimilation of other alimentary products, and this leads to an increase of tissue formation.

Miss W. K., aged 30, neurasthenic, has been a great invalid for four years, and practically bed-ridden for the last two and a half years. The urinary analysis, on April 24, gave the following:—

$$\frac{\text{R.P.} = 6.7}{\text{R.A.} = 7.2} = 7.2.$$

She was put on a course of the effervescing phosphate of soda, as she was suffering from hyper-phosphatia and increased urinary acidity. Analysis No. 2 shows that this treatment very soon

ANALYSIS NO. 2.

Patient's Name.—Miss W. K.

Disease.—Neurasthenia.

Analysis of the Urine.

Date.	Specific gravity.	Acidity.	R.A.	R.P.	Jouffe's coefficient.	Treatment.
24,4,07	—	1.696	7.2	6.7	1.7	
25,4,07	—	1.79	8.42	7.57	1.79	
6,5,07	1021.0	1.18	—	8.89	1.61	Efferves. sodii phosph. 3j. t.d.s.
16,5,07	1014.5	0.46	3.18	11.03	3.4	Efferves. sodii phosph. 3ss. t.d.s.
23,5,07	1025.1	1.814	7.22	15.93	2.2	Efferves. sodii phosph. 3j. t.d.s.
30,5,07	1019.3	1.123	5.82	15.54	2.6	Efferves. sodii phosph. 3j. t.d.s., Magnes. hydrat. gr. v.
10,6,07	1011.2	0.49	4.37	9.82	2.2	Efferves. sodii phosph. 3j. t.d.s., Magnes. hydrat. gr. v.
21,6,07	1018.5	0.807	4.48	11.35	2.5	Efferves. sodii phosph. 3j. t.d.s., Magnes. hydrat. gr. v.
11,7,07	1022.6	1.355	5.99	12.83	2.1	Efferves. sodii phosph. 3j. t.d.s., Magnes. hydrat. gr. v.
2,8,07	—	—	—	—	—	Efferves. sodii phosph. 3j. t.d.s., Magnes. hydrat. gr. v.
7,9,07	1018.2	0.637	3.09	9.7	3.1	Efferves. sodii phosph. 3ss. t.d.s., Magnes. hydrat. gr. v.
1,10,07	1014.6	0.551	3.77	10.2	2.7	Efferves. sodii phosph. 3ss. t.d.s., Magnes. hydrat. gr. v.

reduced the acidity and raised the phosphoric ratio to normal. In two months' time her general health had so much improved that she was able to be up nearly all day, to walk from room to room with support, and to undertake a good deal of fancy needle-work; she also increased in weight considerably.

Mrs. H. W., aged 36, neurasthenic, subject to epileptiform fits for four years. The fits come on generally in the morning, soon after waking, and are preceded by jerking of the limbs, and on one occasion she bit her tongue in a fit; latterly she has been having a fit once a month. On March 23 the urinary analysis gave the following result:—

$$\frac{\text{R.P.} = 16.4}{\text{R.A.} = 1.71} = 9.5.$$

She was given acid. phosph. dil. min. x t.d.s. and Sanatogen. Her general health improved at once. She had a fit in April and another in July, but none since, *i.e.*, only two fits in eight months.

Miss H., under care of Dr. Blackley, suffering from chloro-anæmia. Analysis No. 3 shows how the anæmia disappeared

ANALYSIS No. 3.

Patient's Name.—Harris.

Disease.—Chloro-anæmia.

Analysis of Urine and Blood.

Date.	Specific gravity.	Acidity.	R.A.	R.P.	Joulié's coefficient.	No. of red blood-cells per c.mm.	No. of leucocytes.	Hæmoglobin %
30,4,07	1008.5	0.188	2.21	16.47	7.4	4,060,000	13,330	57 %
6,5,07	1007.8	0.235	3.01	14.1	4.68	5,330,000	10,200	55 %
14,5,07	1008.3	0.412	4.96	13.26	2.6	—	—	—
23,5,07	—	—	—	—	—	5,230,000	7,550	81 %
4,6,07	1011.2	0.494	4.41	14.28	3.2	6,070,000	—	83 %

under the influence of protoxalate of iron; but simultaneously the R.A. rose to normal, and the hyper-phosphatia in great measure disappeared.

Mrs. N. has been a neurasthenic for many years. She was suffering from acidosis, and as a consequence of the toxins circulating in the blood-stream, her arterial blood-tension was much

raised, as indicated by the sphygmographic tracing attached to analysis No. 4. She was given a course of electric light baths under Dr. Neatby's supervision, and this was followed by some

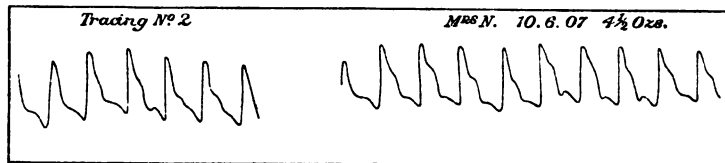
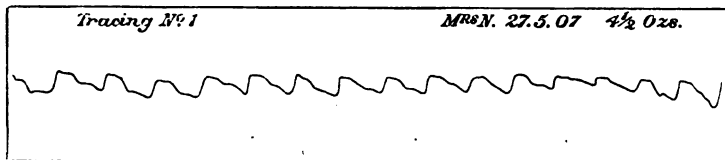
ANALYSIS NO. 4.

Patient's Name.—Mrs. N.

Disease.—Neurasthenia.

Analysis of Urine.

Date.	Specific gravity.	Acidity.	R.A.	R.P.	Coefficient.	Treatment.
30,3,07	—	1.094	7.76	12.98	1.67	—
23,5,07	—	—	—	—	—	Light baths—two per week.
25,5,07	1011.1	0.725	6.53	9.0	1.3	„ „
1,6,07	1011.2	0.719	6.42	10.71	1.6	„ „
15,6,07	1016.0	0.544	3.4	5.62	1.6	„ „
29,6,07	1009.7	0.538	5.55	8.24	1.4	Stopped the baths. Efferves. sodii phosph. 3ss., t.d.s.
13,7,07	1011.3	0.573	5.07	11.94	2.3	Efferves. sodii phosph. 3ss., t.d.s.



material improvement in her general health. This urinary analysis shows that the baths reduced the acidosis, and the second pulse tracing demonstrated that it was accompanied by a lowering of the arterial tension. She was receiving no phosphoric treatment during that time.

I have recorded these two latter cases to show that the urinary ratios can be rectified by other means than the phosphoric treatment.

The diseases most amenable to this treatment are neurasthenia, chronic arthritis, diabetes mellitus, chronic eczema, psoriasis, fermentative dyspepsia, and gout.

Mr. F., an elderly man, suffering from enormous gouty deposits in the hands and feet; he was also afflicted with senile dementia. Appended is a photograph of this gentleman's hands and a note



of the urinary analysis. It will be noticed how remarkably it coincides with the semiological values of Type V. of Joulie's scheme.

ANALYSIS No. 5.

Patient's Name.—Farmer.

Disease.—Gouty arthritis of hands and feet. Senile dementia.

Analysis of the Urine.

Date.	Specific gravity.	Acidity.	R.A.	R.P.	Joulie's coefficient.
11,4,07	1005·7	0·333	5·81	5·24	0·9

Type 5	{ Metabolism diminished. { Fermentative dyspepsia. { Demineralisation advanced. { Arthritism.
--------	----	----	----	----	--

In conclusion, I would forestall any criticisms to the effect that the treatment which I have endeavoured to outline is not in accordance with our usual custom of the minute dose. I would point out that the treatment should be viewed more from the aspect of dietetics rather than therapeutics. According to the same principles that guide the practitioner in prescribing a suitable dose for obesity and malnutrition and tangible doses of iron for anæmia, so it is expedient at times to use certain forms of PO_5 , according to the necessities of the case ; but, as I have above indicated in my clinical examples, it is possible to reach the desired effect by other means than PO_5 , and when my researches are more advanced, I do not despair of demonstrating that such can be effected by the law of *similia similibus*.

The paper was illustrated by lantern slides and chemical apparatus.

Dr. SPEIRS ALEXANDER (in the chair) thought that the author had fairly established his claim that his paper would supply a gap in the literature of the subject of acidity of the urine in this country. He thought it would be highly desirable that the paper should receive greater publicity than that which it could obtain through the pages of the quarterly Journal. It had often been said of them as a Society that they practically ignored pathology, but after such a paper as Dr. Watkins's he (Dr. Alexander) thought they could not be fairly accused of that in the future. The author had stated that the clinical aspect of the paper did not altogether coincide with their usual practice from the homœopathic standpoint, but one of the series of cases given did come under that head, namely, the treatment of diabetes by means of phosphoric acid, which had been so successful in the past. That had now been put on a sound pathological basis. He (Dr. Alexander) had been trying a few cases with Sanatogen, which he had found useful as a food in certain conditions of neurasthenia.

Mr. DUDLEY WRIGHT had been much interested in the subject of the paper for a considerable time, and two or three years ago made a certain number of investigations himself. Since then it seemed to him that the general ideas of physiologists on the subject had undergone a very considerable

alteration, for not only had the method of testing the acidity or alkalinity of the blood-serum been altered and the old method to a certain extent discredited, but there had been a radical alteration also in the general view with regard to the condition of the blood in such a disease as diabetes and other metabolic diseases. It used to be generally taught that in diabetes there was a hyper-acidity, that the soluble salts, particularly the ammonia, soda and potassium salts, were all by degrees used up in neutralising the acids which were such a marked feature of the serum in that disease. As a result, the treatment was to pour in large doses of bicarbonate of soda in order to supply that amount of salts which was deficient owing to the neutralisation of the acid. He had doubts whether that was altogether correct. After an experience in the wards in a case of diabetic coma, where the man had an advanced state of hyper-acidity of the blood, in which a venesection was performed and a large quantity of bicarbonate of soda solution was poured in—a quart or more—and the acidity of the blood actually rose rather than diminished as the soda went in. It seemed to him that they ought to have poured in phosphoric acid all the time instead of bicarbonate of soda. Unfortunately the patient did not recover, so that they had no opportunity of trying anything else. He wished to recommend to the author's consideration a very simple remedy in such cases, which he had always found very satisfactory, namely, simple curdled milk. It was perfectly well known that curdled milk contained large quantities of lactic acid, and he had found that patients suffering from metabolic disease did well if they were taken off ordinary milk and put on curdled milk. That treatment, together with insisting upon proper mastication by the patient, would usually cure a large number of diseases of metabolism. As the author had pointed out, the condition of hyper-acidity of the stomach, with acid fermentation, was a very common one which might be corrected by insisting upon proper mastication of the food. If patients masticated their food properly, and added to it the saliva which was so much needed, they would be saved a good part of the acid fermentation; and if, in addition, they were made to suck the juice of half or a whole lemon, or if the juice were sprinkled on the food before they ate it, it would be found that the cases practically got well. That had been his experience in his own and many other cases, and he ventured to confidently recommend it to members of the Society.

Dr. ROBERSON DAY thought the author had emphasised a

very important point in stating that plenty of fluid should be taken to prevent the deposit of those deleterious matters which were so common in the clinical treatment of rheumatism, gout, and arthritis. If such a simple thing as distilled water was taken in large quantities well in advance of meals, it was surprising what an effect it had in preventing deposits and painful symptoms. There might be many ways of curing cases of defective metabolism, but he had found that by largely flushing out the system by some pure water (and distilled water was one of the best because it had the greatest possible solvent properties), and then by taking the meals dry, would alone cure many cases. It was always a mistake to take fluid during meal times where there was a tendency to indigestion; it seemed to dilute the digestive fluid and prevent a healthy metabolism.

Dr. BYRES MOIR said it was a very important point to decide, if possible, the ratio of acidity in cases of rheumatism and diabetes. The question of diet had been threshed out until all doctors were tired of it. Some doctors said that meat and tea were deadly poisons, and that, if taken, people must suffer from their effects. In Australia, however, there were thousands of men living in the bush who existed practically on meat and tea. It was not a question so much of the food as the patient himself. The author had brought forward the question of the use of acids in the conditions described. After making many experiments on the subject, he had been very much struck with the effect of benzoic acid. Especially in rheumatic conditions this was a drug which might be used much more often. He had absolutely cured the whole of the glycosuria with phosphoric acid in two or three cases.

Dr. SPEIRS ALEXANDER further stated that he had been much interested in Mr. Dudley Wright's remarks on thorough mastication and insalivation, and added his own personal testimony to the efficacy of those precautions. Some months ago he adopted that plan for himself and lost 11lb. in weight, for which he was not sorry, and also at the same time lost his headaches, to which he had been a martyr. He had taken the same kind of food as before, but taken longer to masticate it and insalivate it very thoroughly; and he believed he had entirely got rid of his headaches from that cause. Secondly, he wished to say that one of the most brilliant cures of rheumatic fever he had ever experienced was due to the use of benzoic acid. The patient had been treated in the usual way with bryonia, until one day he noticed the urine had the smell

of hippuric acid. He at once gave the patient benzoic acid 3x; in a few hours the temperature was normal and never went up again, and a short time afterwards the patient completely recovered.

DR. WATKINS, in reply, thanked the members for the kind way in which his paper had been received, and also for the many valuable suggestions which had been made, which he would gladly consider in the prosecution of his future researches. The paper itself was not written with the express view of showing that phosphoric acid would cure all the diseases mentioned, but more especially to show that if the ratios could be corrected then the patient got better; and he endeavoured to show by the two last cases that the ratios could be corrected by other means than the phosphoric acid. Mr. Dudley Wright had referred to curdled milk (by which he presumed he meant buttermilk) and lemon-juice. The former was not a combustible acid, and therefore would be a very powerful method of raising the lactic acid, while the latter was an organic acid which would be burnt up and lower the acidity. He entirely confirmed Dr. Moir's statements with regard to Australians being able to live on meat and tea, as he had lived in Australia for four or five years. The tea, which they called "billy" tea, was made by putting the tea into a tin with water, which was then boiled and kept hot for a considerable time; and anybody who wanted a drink simply dipped his cup into the tin and took it out. The people, however, did not seem much the worse for it. He had carried out certain experiments with benzoic acid, but would defer any remarks on that subject to a future meeting.

MINUTES OF THE SOCIETY MEETINGS.

THE FIRST ORDINARY MEETING of the session 1907-8 was held at the London Homœopathic Hospital on Thursday, October 3, 1907, at 8 o'clock, Dr. A. Speirs Alexander, President, in the chair. There were present the following Fellows and Members: Dr. Blackley, Dr. Dyce Brown, Dr. Burford, Dr. Clarke, Dr. A. C. Clifton, Dr. George Clifton, Dr. Cooper, Dr. Spencer Cox, Dr. Cronin, Dr. Croucher, Dr. Roberson Day, Dr. Deck, Dr. Horace Deck, Mr. Eadie, Dr. Epps, Dr. Gilbert, Dr. Ham, Dr. Clifton Harris, Dr. Grantham Hill, Dr. Granville Hey, Dr. Reed Hill, Dr. Jagielski, Dr. Byres Moir, Dr. Murray Moore, Dr. Edwin A.

Neatby, Dr. Neild, Dr. Ord, Dr. Powell, Dr. Purdom, Dr. William Roche, Dr. Sandberg, Dr. Frank Shaw, Mr. Knox Shaw, Dr. Stonham, Dr. Wynne Thomas, Dr. Watkins, and Dr. C. E. Wheeler.

Dr. W. P. Purdom was introduced as a visitor.

Expressions of regret for unavoidable absence and good wishes were received from Dr. Cavenagh, Dr. Deane, Dr. Goldsbrough, Mr. Johnstone, Dr. Macnish, Dr. Murray, Dr. Tindall, and Mr. Dudley Wright.

The Silver Vase which had been presented to Dr. Dyce Brown at the Annual Homœopathic Congress, held at Harrogate, was exhibited at this meeting.

The President delivered his Inaugural Address, entitled "*Law versus Scepticism in the Science of Medicine*" (see p. 1 of this number of the Journal).

On the motion of Dr. Blackley, seconded by Dr. Neild, a vote of thanks to the President for his Address was accorded with hearty acclamation.

After the meeting, the Fellows and Members enjoyed the hospitality of the President at supper at the Hotel Russell.

The SECOND ORDINARY MEETING of the session 1907-8 was held at the London Homœopathic Hospital on November 7, 1907, Dr. A. Speirs Alexander, President, in the chair. There were present: Dr. Beale, Dr. Bennett, Dr. Hervey Bodman, Dr. Burford, Dr. Clarke, Dr. Cooper, Dr. Roberson Day, Dr. Goldsbrough, Dr. Vincent Green, Dr. John Hayward, Dr. Granville Hey, Dr. Jagielski, Dr. James Jones, Dr. Macnish, Dr. Madden, Dr. Byres Moir, Dr. Edwin Neatby, Mr. Knox Shaw, Dr. Stonham, Dr. Storrar, Dr. Wynne Thomas, Dr. Watkins, Dr. Wheeler, and Mr. Dudley Wright.

Dr. Dyce Brown sent an apology for absence.

Dr. Porter and Dr. W. P. Purdom were introduced as visitors.

NEW MEMBER.

Edward Cronin Lowe, M.B., B.S.Lond., of Southport, proposed by Dr. Neatby and Mr. Knox Shaw, was elected a member of the Society.

SECTION OF MATERIA MEDICA AND THERAPEUTICS.

A paper was read by Dr. Hervey Bodman, of Bristol, entitled "*The Curability of Acute Tuberculosis*," which was followed by a discussion (see pp. 40 and 59 of this number of the Journal).

This was followed by a paper by Dr. C. E. Wheeler, of London, entitled "The Relation of Phosphorus to the Opsonic Power of the Blood over the Tubercle Bacillus." A discussion followed (see pp. 66 and 77 of the present number of the Journal).

At a meeting of the COUNCIL held on November 26, 1907, it was resolved that, as organised by the Council, the circulation of foreign magazines should be discontinued.

At the same meeting it was also decided that the *Index of Clinical Cases*, recently published by the Society, should be on sale at the ordinary meetings during the current session, and that after the current session the reduced price to members should be discontinued.

The THIRD ORDINARY MEETING of the session 1907-8 was held at the London Homœopathic Hospital on Thursday, December 5, 1907, Dr. Speirs Alexander, President, in the chair. There were present: Dr. Blackley, Dr. Burford, Dr. Spencer Cox, Dr. Roberson Day, Dr. Deane, Mr. Eadie, Dr. Goldsbrough, Dr. Vincent Green, Dr. Granville Hey, Dr. Jagielski, Dr. Macnish, Dr. Madden, Dr. Frank Nankivell, Dr. Pincott, Dr. Powell, Mr. Knox Shaw, Dr. Stonham, Dr. Wynne Thomas, Dr. F. Watkins, Dr. C. E. Wheeler, Mr. Wilkinson, Mr. Dudley Wright.

Dr. Dyce Brown and Dr. Byres Moir sent apologies for absence.

NEW MEMBER.

Walter Watkins, M.R.C.S.Eng., L.R.C.P.Lond., of Southend, who had been proposed at a previous meeting, was elected a member and introduced to the Society.

VISITORS.

Dr. Rome, of Minneapolis (U.S.A.), Dr. Bruton, of Detroit (U.S.A.), and Dr. W. P. Purdom were introduced as visitors.

SECTION OF GENERAL MEDICINE AND PATHOLOGY.

A paper was read by Lieutenant-Colonel H. E. Deane, M.D. Dur., M.R.C.S.Eng., entitled "Practical Points connected with Lateral Curvature of the Spine." The paper was illustrated by a demonstration of the effects of weights and exercises on patients. A discussion followed, taken part in by Dr. Speirs Alexander, Mr. Dudley Wright, Dr. Madden, Dr. Goldsbrough, Dr. Roberson Day, Mr. Knox Shaw. Dr. Deane replied. (The paper, with discussion, will appear in the April issue of the Journal).

A paper was subsequently presented by Dr. Frank A. Watkins on "Acidity of the Urine," but owing to lack of time the complete reading and discussion of the paper were postponed until the January meeting. (This paper with the discussion appear on pp. 90 and 118 of the current issue of the Journal.)

LIVERPOOL BRANCH.

Annual Report, Session 1906-7.

Eight meetings were held during the Session, at six of which papers were read and discussed, whilst two of the meetings were devoted to Clinical Evenings, on which occasions several interesting cases and specimens were presented. The topics dealt with in the papers were as follow:—

(1) "The Science of Homœopathy," Dr. Watson; (2) "Some Aspects of Abdominal Pain in Women," Dr. Cash Reed; (3) "The Treatment of Nephritis in the Young," Dr. Edmund Hughes; (4) "The Therapeutic Actions of Solar Energy," Mr. Dudley Wright; (5) "Some Brain Lesions," Dr. A. E. Hawkes; (6) "Addison's Disease," Dr. A. E. Hawkes.

During the Session one member has resigned, owing to his retirement, at least temporarily, from practice. No new members were enrolled during the session.

The average attendance was between eight and nine members, which is not regarded as very encouraging.

The cash balance in hand is 12s. 6d.

ERRATUM.

On page 337 of the Journal for 1907 (October Number), in the *Report of the Council*, paragraph 6, the word "Journal" should read "Journals." The word refers to the magazine club circulation, and not to the *Journal of the Society*.

SUMMARY OF PHARMACODYNAMICS AND THERAPEUTICS.

*Extracts from Exchange and other Journals by the Editor,
in collaboration with J. Galley Blackley, M.B.*

Bryonia.—In some notes of lectures delivered at Pulte Medical College, Dr. C. M. Boger gives the following review of the general symptoms in the pathogenesis of bryonia: (1) Symptoms arising or made worse from motion of every sort, even of a distant part. Aversion to being moved, especially to being raised up—it causes faintness. Coughing is particularly painful, it may hurt the head, chest, or any part. Deep breathing hurts. Quiet rest is a great help. (2) External pressure relieves; tight bandages feel good. (3) Intolerance of all kinds of heat or of becoming heated, especially by the sun, near a fire, from ironing, running, &c.; hot rooms aggravate. (4) Sticking pains, which impede motion; bursting, splitting, distensive pains, mostly referred to the cavities of the body. (5) Dryness, tendency to scanty secretion; dry stools. (6) A right-sided remedy; liver; ileo-cæcal region; larger joints; bilious symptoms. (7) Suppressed or undeveloped diseases; vicarious manifestations. (8) Inflammations or congestions of material parts; many kinds of fever, especially with a dry skin, burning heat, and a full, quick, tense pulse. (9) Effects of eating fruits, bread, legumes, sauerkraut, &c. (10) Beclouded mind; disposition to angriness; home-sickness; worries over the day's work in his delirium or when dreaming. (*Homœopathic Recorder*, October, 1907, p. 454.)
—ED.

Carbolic Acid and Iodine. *A Comparison.*—Dr. Stonham points out the close similarity in the pathogenesis of carbolic acid and iodine, and suggests this as the reason why the latter is an antidote to poisoning by the former. Two cases are cited in which the antidote action was requisitioned, and in the second one the dose of iodine effective as an antidote was too small for it to have had merely a chemically neutralising effect. In the lists of compared symptoms which Dr. Stonham cites, which are the

immediate effects of poisonous doses of these drugs, only three differences are mentioned in their irritant effects. In carbolic acid poisoning the throat and tongue are black and tender; there are ulcerated patches on the inside of lips and cheeks. In iodine poisoning there are aphthæ and ulcers in the mouth, with a thick croup-like exudation in the mouth and fauces. In carbolic acid poisoning the palpitation is worse at night. In iodine poisoning after the least exertion. Vesicular eruptions, with tendency to pustulation, are produced in the one case, with papular eruptions in the other sharing the same tendency. (*British Homœopathic Review*, September, 1907, p. 521.)—Ed.

Kali Phosphoricum. *Provings.*—Kali phos. was one of the drugs selected by the trustees of the American Institute of Drug Proving. The method adopted was that of the O. O. and L. Society with some modifications. The following is what the director (George Royal, M.D.) terms a practical working knowledge of the drug. The great majority of symptoms are seen under the headings mind, head, eyes, stomach, genito-urinary system, modalities. The last named, with "mind," brings out the finer shades of the drug picture. The mental symptoms included: (1) Irritated, excited, restless condition; (2) apprehensive, depressed, morose; (3) forgetful, indifferent, lethargic. The general modalities are better from rest, nourishment and heat; worse from excitement, worry, and both mental and physical exertion. Special modalities are better from pressure and worse from pressure. The sharp, shooting supra-orbital pains are better from gentle pressure and rubbing, while the occipital soreness is aggravated by pressure. The sensations of the drug are incisive, and they show that the drug will be useful in conditions which run a rapid course, or a slow course with various stages and relapses. The pains are sharp or dull, lasting a few seconds or all day. The most prominent persistent sensation was prostration, referred to the mind, the nerves and the muscles. Such expressions as weak, tired, exhausted, drowsy, exhausted but restless, hardly able to move, depressed, were found in nearly all the provers. Kali phos. acts upon the brain- and nerve-cells, upon the corpuscles of the blood, affecting the nutrition, causing irritation, slight inflammation, and a certain degree of degeneration. The characteristic symptoms of kali phos. have been verified in adults of both sexes suffering from amenorrhœa, nervous dyspepsia, nervous exhaustion, nervousness due to sexual excitement, typhoid fever. (*North American Journal of Homœopathy*, October, 1907, p. 555.)—Ed.

Manganese. *Symptoms of Chronic Poisoning.*—Professor von Jaksch, of Prague, at this year's Congress for Internal Medicine, gave an account of three cases of chronic manganese poisoning recently observed by him, the subjects being workmen employed in a manganese factory. The symptoms observed in 1901 at the commencement of the attack were quite peculiar. All three had involuntary laughter and involuntary weeping, and a still more peculiar and typical symptom—that of walking backwards. Beyond this, there were strongly exaggerated reflexes present and very considerable psychical disturbance, evidenced by the men making fun of each other's gait.

Two of the cases were unfortunately lost sight of, but the third returned to von Jaksch for treatment in 1904. Considerable improvement had evidently taken place, for the psychical symptoms had quite disappeared. He displayed, however, a very peculiar gait, which it was difficult to designate as either spastic or ataxic. In 1906 he again came under continuous observation. Many of the nervous symptoms had vanished, including that of retropulsion. There was no paralysis, for he could walk with the aid of two sticks, but the gait was peculiar in the fact that he walked upon the metacarpo-phalangeal joint. This same gait was also observed in another case (on one side only), and, although there was no actual laughing or crying, he was generally in a somewhat lachrymose condition. In February, 1907, another case came under observation. This man showed considerable psychical change, he cried and complained that he was going to die. His gait, although peculiar, was not absolutely identical with that described above; he walked more like a drunken man and there was retropulsion, and the field of vision was found to be much contracted. (*Allg. Homöop. Zeitung*, October 17, 1907, p. 120.)—J. G. B.

Ophthamo-diagnosis of Typhoid Fever.—Chantemesse, taking advantage of recent work on the ophthalmic reaction in tuberculosis, has arrived at results in every way comparable for typhoid fever. He prepared a dry typhoid toxin, reduced to a powder and active to the fraction of a milligramme. This was prepared by precipitating with absolute alcohol a strong solution of soluble typhoid toxin. In this way he obtained a powder of which $\frac{1}{10}$ mg. dissolved in a drop of water and instilled under the lower eyelid gave the ophthalmic reaction of typhoid. The description he gives of this reaction is as follows:—

In healthy persons, or those who are suffering from some disease other than typhoid, two or three hours after the instil-

lation of the drop slight redness is seen with a little lachrymation, the whole disappearing at the end of four or five hours, and on the following day no difference can be perceived between the eyes. In patients suffering with or convalescent from typhoid fever, the reaction is very much stronger; it attains its maximum in from six to twelve hours and lasts until the following day, and is characterised by redness, lachrymation, and the production of a sero-fibrinous exudation. Looking at the patient, even at a distance, twenty-four hours after the instillation of the test, one can still recognise by its slight redness the eye which has been treated. Very often, indeed, a positive result is recognisable even after two or even three days. After a large number of experiments, Chantemesse considers that this method of ophthalmodiagnosis is without danger, and allows both physician and patient to see inscribed on the eyelid the diagnosis of the disease from which he is suffering or has suffered. (*L'Art Médical*, October, 1907, p. 465.)—J. G. B.

Pineal Gland. *Physiological Action of the Extract.*—Hallian and Carrion read before the Paris Therapeutical Society an account of their experiments with an extract of the cerebral hypophysis prepared in the following manner: The glands of a large number of newly-slaughtered oxen are rapidly reduced to pulp and an equal volume of 90 per cent. alcohol added; they are afterwards exposed in a thin layer, dried at a temperature of 38° to 40° C., and lastly, they are reduced to fine powder. This powder, when wanted for use, is put to macerate in the cold, with twenty to forty times its weight of physiological saline solution. For their experiments dogs were taken, and this solution, in the proportion of $\frac{1}{500}$ to $\frac{20}{100}$ of a c.cm. (equal to 3 to 10 mg. of the dry extract) per kilogramme of body weight injected into a vein. This experiment, performed a large number of times, gave characteristic and constant results upon the arterial pressure, and was identical with that obtained by using the fresh organ.

Under the influence of the extract the arterial pressure did not fail to mount above its previous level, the pulse at the same time becoming slower and fuller. The extract produces effects, therefore, just the opposite of those caused by the majority of injections. These facts explain the good effects obtained with the drug in Graves' disease, chronic pulmonary tuberculosis, typhoid fever, and typhoid myocarditis; they warrant its trial in other infections and intoxications, where the arterial pressure is generally lowered, and where one is warranted in suspecting functional

insufficiency or even some lesion of the hypophysis. Worthy of note also are the results obtained with the drug in the way of variations of vaso-motor innervation, and particularly the internal vaso-constriction exercised upon the thyroid body, one reason the more for recommending it in certain goitres with perceptible arterial pulsation betraying a permanent internal vaso-dilatation of the thyroid gland.

The kidney, on the other hand, at first contracts, implying a contraction of its vessels; but this initial phenomenon only lasts a very short time, and gives place to a vaso-dilatation of very long duration, and implying a more active circulation in the kidney. This also agrees with the diuretic properties possessed by the juice of the hypophysis. The hypertensory power is met with in the posterior lobe, of which the extract is more active than that of the globe, at least from the circulatory point of view; but the internal secretion of the anterior lobe probably possesses other and unknown properties, and it would be better not to deprive oneself of this by using a partial extract. (*L'Art Médical*, September, 1907, p. 226.)—J. G. B.

Sulphur. *Study of Pathogenesis and Therapeutic Uses.*—In two long and important articles on sulphur Dr. Eduardo Fornias, of Philadelphia, presents a systematic scheme for a study of the drug which is worthy of notice, and in the light of modern chemical physiology he reviews its action on the economy and recapitulates its well-known therapeutic uses. The following is the scheme for study: (1) *Rôle of sulphur in the organism*, organogenesis, cells, transformation, elimination. (2) *General action of sulphur as a drug*, living cell, circulation, nervous reaction, psora. (3) *Special action of sulphur, nervous system*, mind sensation, motion, sleep, *vegetative system*, nutrition and secretion, digestion, circulation, respiration, calorification, reproduction, histo-genesis. (4) *Therapeutic application of sulphur*, nervous troubles (lack of reaction), diseases of nutrition, digestive, circulatory, and respiratory troubles, tissue changes, dermatoses, fevers, diseases of the male and female organs. (5) *Relationship and comparison with other remedies*. (6) *Literature of sulphur*. Dr. Fornias devotes the whole of his first article to the rôle of sulphur in the economy, pointing out that it is an important constituent of normal life, and therefore has function in all organic processes. In reference to its general action as a drug, in his second article he shows that certain katabolic changes produced by it have important influence on infections and anti-infections. It has great effects on retrograde metamorphism. It

is also an important dynamo-generic element. With the exception of *calcareo carbonica*, no remedy has greater power to correct chronic metabolic difficulties, to modify depraved systemic habits, and arrest errors of development and nutrition. (*Hahnemannian Monthly*, September, 1907, p. 657; and November, p. 837.)—Ed.

Viscum Album. Professor Finley Ellingwood, of Chicago, presents a condensed review of the physiological action and therapeutic effects of the *mistletoe*. The preparation used must be made from the green plant, and in sufficient dose to produce the physiological action in a mild form. The drug resembles ergot in producing contraction of the involuntary muscular fibre, and reducing the flow of blood through the brain. The drug has been used as a remedy in hysteria and epilepsy, neuralgia, and in cases of amenorrhœa or dysmenorrhœa, where its influence on the uterine muscle fibre and the nervous system is desired as an oxytotic. It induces a normal intermittent uterine contraction. It is used also in the treatment of intractable cases of chorea and in the convulsions of childhood. The mistletoe is said to have an influence upon the heart similar to convallaria and cratægus, and might prove a useful heart tonic. (*Homœopathic Recorder*, October, 1907, p. 459.)—Ed.

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- 1903 †COOPER, ROBERT MONTAGU LE HUNTE (*Council*), (*Librarian*),
M.D., B.S.Durh., M.R.C.S., L.R.C.P.Lond.; 18, Wimpole
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(C. 1906-7.)
- 1893 †CORBETT, HERBERT HENRY, M.R.C.S.Eng.; 9, Priory
Place, Doncaster.

Elected

- 1892 COX, RICHARD PERCY, M.D., C.M.Edin. (*travelling*); for letters, c/o Dr. Steinthal, Gwynant, Withington, Manchester.
- 1890 COX, WILLIAM SPENCER, M.D.Brux., M.R.C.S.Eng., L.S.A.; Assistant Physician to the London Homœopathic Hospital; Physician to the Kensington, Notting Hill and Bayswater Homœopathic Dispensary; 90, Church Street, Kensington, W.
- 1892 †CRAIG, JOHN, L.R.C.P.Edin., L.F.P.S.Glas.; Shelton House, Stoke-upon-Trent.
- 1862 CRONIN, EUGENE FRANCIS, M.D.St. And., M.R.C.S.Eng., L.S.A.; Old Manor House, Clapham Common, S.W.
- 1892 CROUCHER, ALEXANDER HENRY, M.D., C.M.Edin., F.R.C.S. Edin.; Physician and Surgeon to the Leaf Homœopathic Cottage Hospital; to the Eastbourne Homœopathic Dispensary; and to the Eastbourne Homœopathic Convalescent Home; Onslow House, 6, Burlington Place, Eastbourne.
- 1867 †CROUCHER, ALEXANDER RICHARD, M.D.St. And., M.R.C.S. Eng., L.S.A., L.M.; Consulting Physician to the Buchanan Hospital, St. Leonards-on-Sea; 26, Portland Terrace, Southampton.
- 1899 †DAWSON, HARRY GEORGE FREDERICK, L.R.C.P.I., L.R.C.S.I., L.M.; 23, Hamilton Square, and 35, Beresford Road, Birkenhead.
- 1887 *DAY, JOHN ROBERSON, M.D.Lond., M.R.C.S.Eng., L.R.C.P. Lond., L.S.A.; Physician for Diseases of Children, and Consulting Anæsthetist to the London Homœopathic Hospital; 35, Queen Anne Street, W. (P. 1902. V.-P. 1900-1. C. 1896.)
- 1892 *DEANE, HERBERT EDWARD (*Council*), M.D.Dur., M.R.C.S. Eng., L.S.A.; Lt.-Colonel, Royal Army Medical Corps (*Retired*); Assistant Physician to the London Homœopathic Hospital, 33, Weymouth Street, W.
- 1907 DECK, HORACE LEIGH, M.R.C.S.Eng., L.R.C.P.Lond., D.P.M. and H.Cantab.1908, Withycombe, Ashfield, Sydney, New South Wales.

Elected

- 1875 †DECK, JOHN FIELD, M.D.St. And., M.R.C.S.Eng., L.R.C.P.
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- 1906 †EADIE, JAMES, M.B., Ch.B.Glas., Assistant Surgeon to the
 London Homœopathic Hospital; 7, Upper Woburn
 Place, W.C.
- 1893 EATON, HENRY ARNOLD, M.B., C.M.Edin.; 16, Eldon
 Square, Newcastle-on-Tyne.
- 1887 ELLIS, JOHN WILLIAM, M.B., Ch.B.Vict. and Liv., L.R.C.P.,
 L.R.C.S.Edin.; Honorary Physician to the Hahnemann
 Hospital, Liverpool; 18, Rodney Street, Liverpool.
- 1900 ELLWOOD, THOMAS ASHCROFT, M.R.C.S.Eng., L.R.C.P.Lond.,
 D.P.H.Camb.; 99, Tollington Park, N., and 12a, Fins-
 bury Square, E.C.
- 1875 *EPPS, WASHINGTON, L.R.C.P.Edin., M.R.C.S.Eng.; Physician
 to the London Homœopathic Hospital; 55, Queen Anne
 Street, W. (P. 1899. V.-P. 1896-98. C. 1893-94-97,
 1903-04.)
- 1906 FAIRLIE, HENRY PRESCOT, M.B., Ch.B.Glas.; 2, University
 Gardens, Hillhead, Glasgow.
- 1904 †FALLON, ROBERT HUME, M.D., C.M.Aberd.; 61, Somerset
 Road, Cape Town.
- 1892 FINLAY, JOHN THOMAS, L.R.C.P., L.R.C.S., L.M.Edin.,
 L.A.H., L.M.Dub.; Greystone [House, Rawtenstall,
 Lancashire.
- 1881 GILBERT, SYDNEY, L.R.C.P., L.R.C.S.Edin., L.A.H., L.M.
 Edin. and Dub.; Somersfield Cottage, Reigate.
- 1893 †GILES, FREDERICK WILLIAM, M.B.Durh., M.R.C.S.Eng.
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- 1881 *GOLDSBROUGH, GILES FORWARD (*Editor*), M.D., C.M.
 Aberd.; Physician and Physician for Diseases of the
 Nervous System to the London Homœopathic Hospital;
 82, Wimpole Street, W., and Churchside, Herne Hill,
 S.E. (P. 1895. V.-P. 1893-94. C. 1897-98, 1901.)
- 1892 †GORDON, JOHN NEWLANDS, M.B., C.M.Aberd.; 70, Upper
 Parliament Street, Liverpool.

Elected

- 1886 GOULD, EDWARD GARDINER, L.R.C.P.I.; Northcot, Grange Road, Sutton, Surrey.
- 1901 ‡GRACE, NATHANIEL, M.D., C.M.McGill Univ., Montreal, M.R.C.S.Eng., L.R.C.P.Lond.; Hon. Surgeon to the Tunbridge Wells Homœopathic Hospital and Dispensary; 2, Calverley Mount, Tunbridge Wells.
- 1892 *GREEN, CONRAD THEODORE, M.R.C.S.Eng., L.R.C.P.Lond., F.L.S.; Fell. Roy. Instit. Public Health; Honorary Medical Officer to the Wirral Homœopathic Dispensary; Capt. Army Med. Reserve; Surg.-Capt. 1st V. B. Cheshire Regt.; Certifying Factory Surgeon; Admiralty Surgeon and Agent; 31, Shrewsbury Road, Birkenhead. (*P. Liverpool Branch*, 1896. V.-P. 1899.)
- 1892 *GREEN, VINCENT, M.D.Edin.; Assistant Surgeon for Diseases of the Throat and Ear to the London Homœopathic Hospital; Physician to the Wimbledon and Merton Homœopathic Dispensary; Greyroofs, Wimbledon Hill, and 155, Fenchurch Street, E.C.
- 1906 GREENWOOD, J. W., M.B., Ch.B.Vic.; 1, Slade Lane, Longsight, and 8, King Street, Manchester.
- 1902 GREIG, CHARLES JOHN, L.R.C.P.Edin., L.R.C.S.Edin., L.F.P.S.Glasg.; Physician to the Ealing and West Middlesex Homœopathic Dispensary; Gordon House, 86, Gordon Road, Ealing, W.
- 1895 GREIG, WILLIAM, M.B., C.M.Aberd.; South Parade, Wakefield.
- 1876 HALL, EDGAR ATHELING, M.B., C.M.Edin.; Physician to the Surbiton, Kingston, and Norbiton Homœopathic Dispensary; Seacombe, Adelaide Road, Surbiton.
- 1892 HALL, FREDERICK, L.R.C.P., L.R.C.S.I., L.M.; 18, Shakespeare Street, Nottingham.
- 1906 HAM, CHARLES EDWARD, M.D.Lond.; Swiss Villa, King's Road, Reading.
- 1894 HARDY, JAMES EBENEZER, M.B., C.M.Edin.; 2, Queen's Crescent, Glasgow, W.
- 1859 †HARPER, JAMES PEDDIE, M.D.Edin., L.R.C.S.Edin.; Milburn House, Knight's Hill, West Norwood, S.E.

Elected

- 1902 HARRIS, HENRY ARTHUR CLIFTON, M.R.C.S Eng., L.R.C.P.
Lond.; Medical Officer to the Sussex County Homœo-
pathic Dispensary; 12, Buckingham Place, Brighton.
- 1900 HARRIS, LILLIAN MAUDE CUNARD, L.R.C.P.I. and L.R.C.S.I.;
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- 1878 *HAWKES, ALFRED EDWARD (*Liverpool Branch Representative*),
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(P. 1905. V.-P. 1904-5. C. 1898-1908. P. *Liverpool*
Branch, 1892, 1901. V.-P. 1893, 1903-4.)
- 1904 HAWKES, JAMES L., M.D.Liv. (1906,) M.B., Ch.B.Vict. and
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- 1905 †HAYES, FREDERICK WILLIAM, M.B., Ch.B. Vict. and Leeds;
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3, Reginald Terrace, Leeds.
- 1886 HAYLE, THOMAS HAHNEMANN, M.B.Lond.; B.Sc.Victoria;
The Crescent, Rochdale.
- 1892 HAYWARD, CHARLES WILLIAMS (Barrister-at-Law), M.D.,
C.M.Edin., D.P.H.Camb., M.R.C.S.Eng., L.R.C.P.Lond.;
Surgeon, and Surgeon to the Throat, Nose and Ear
Department, Hahnemann Hospital, Liverpool; 117,
Grove Street, Liverpool. (V.-P. *Liverpool Branch*, 1902.
P. 1903.)
- 1892 HAYWARD, JOHN DAVEY, M.D.Lond., M.R.C.S.Eng., L.S.A.;
Consulting Surgeon to the Hahnemann Hospital, Liver-
pool; Leyfield Priory, West Derby, Liverpool.
(P. *Liverpool Branch*, 1897. V.-P. 1899.)
- 1868 *HAYWARD, JOHN WILLIAMS, M.D.St. And., M.R.C.S.Eng.,
L.S.A., M.D. (Hon.) New York; Consulting Physician
to the Hahnemann Hospital, Liverpool; 61, Shrewsbury
Road, Birkenhead. (P. *Liverpool Branch*, 1895. V.-P.
1897. C. 1892-97.)
- 1904 HEY, CLARENCE GRANVILLE, M.B., C.M.Ed.; Assistant
Surgeon, Assistant in the Ophthalmic Department
London Homœopathic Hospital; 96, Earl's Court Road,
Kensington, W.

Elected

- 1885 †HILBERS, HERMANN GERHARD, B.A.Camb., L.R.C.P., L.R.C.S. Edin., L.F.P.S.Glas. ; Honorary Physician to the Sussex County Homœopathic Dispensary ; Honorary Physician to the Crescent House Convalescent Home ; 49, Montpelier Road, Brighton.
- 1901 †HILL, WILFRED GRANTHAM, M.D.Brux., L.R.C.P.Lond., M.R.C.S.Eng., L.S.A. ; late Assistant Physician to the London Homœopathic Hospital ; 49, High Road, Chiswick, W.
- 1887 HILL, WILLIAM REED, M.B., C.M.Edin. ; 38, Berners Street, Ipswich.
- 1902 HUGHES, EDMUND, M.R.C.S.Eng., L.R.C.P.Lond. ; Medical Officer to the North Homœopathic Dispensary, Liverpool ; 102, Queen's Road, Liverpool. (P. *Liverpool Branch*.)
- 1892 †HUXLEY, JOHN CHARLES, M.D., C.M.Aberd. ; Honorary Surgeon to the Birmingham and Midland Homœopathic Hospital and Dispensary ; 91, Harborne Road, Edgbaston, Birmingham.
- 1904 †HYND, ALFRED JAMES, M.B., C.M.Aberd., D.P.H., 89, Mount Pleasant, Liverpool.
- 1904 HYND, THOMAS CHALMERS, M.B., Ch.B.Aberd., 11, Standishgate, Wigan.
- 1882 *JAGIELSKI, VICTOR APOLLINARIS, M.D.Berlin, M.R.C.P. Lond. ; 14, Dorset Square, N.W.
- 1894 *JOHNSTONE, JAMES, B.A., F.R.C.S.Eng., M.B., C.M., D.P.H. Aberd. ; Assistant Physician for Diseases of Women to the London Homœopathic Hospital ; 26, Sheen Road, Richmond, Surrey. (P. 1904-05. V.-P. 1902-04. C. 1896-97, 1900. S. 1898-1901.)
- 1887 †JONES, DAVID OGDEN ROEBUCK, M.D.Trin. Coll., Toronto, L.R.C.P.Lond. ; Physician to the Grace Hospital (Homœopathic) ; Surgeon for Diseases of the Eye, Ear, Nose and Throat, to the "Nursing at Home Mission" Dispensary ; 126, Carleton Street, Toronto, Canada.

Elected

- 1893 JONES, GEORGE REGINALD, L.R.C.P.Lond., M.R.C.S.Eng., Medical Officer to the Homœopathic Institution, Manchester ; Medical Officer to the Manchester Warehousemen and Clerks' Association ; 73, Withington Road, Whalley Range, Manchester.
- 1866 ‡JONES, JAMES, M.D.Edin., M.R.C.S.Eng., L.R.C.P.Lond. ; 157, Lewisham Road, S.E.
- 1881 JONES, THOMAS REGINALD, L.R.C.P.I., L.M., M.R.C.S.Eng. ; late Consulting Physician to the Wirral Homœopathic Dispensary ; Wayside, Colwyn Bay.
- 1901 LEWIN, OCTAVIA MARGARET SOPHIA, M.B., B.S.Lond., M.D.Chicago ; Assistant Physician and Registrar to the London Homœopathic Hospital ; 25, Wimpole Street, W.
- 1907 LOWE, EDWARD CRONIN, M.B., B.S.Lond., 31, Church Street, Southport.
- 1902 ‡MACDONALD, DAVID, M.D.Glas., M.B., C.M.Glas. ; Hon. Physician to Hydropathic Hospital and North of England Children's Sanatorium ; Rivington, Hoghton Street, Southport.
- 1886 MCKILLIAM, ROBERT, M.D., C.M.Aberd. ; 6, Grote's Buildings, Blackheath, S.E.
- 1892 McLACHLAN, JOHN, M.A.(Oxon.), B.C.L., M.D., C.M., B.Sc. Edin., F.R.C.S.Eng., L.S.A. ; Physician to the Oxford Homœopathic Dispensary ; 3, Keble Road, Oxford.
- 1893 *MACNISH, DAVID (*Vice-President*), M.A., M.B., C.M.Edin. ; Physician to the London Homœopathic Hospital ; Physician to the Kensington, Notting Hill and Bayswater Homœopathic Dispensary, W. ; 4, Leinster Square, W. (C. 1901-02-04-05.)
- 1876 *MADDEN, EDWARD MONSON, M.B.Edin., M.R.C.S.Eng., Physician to the Phillips Memorial Hospital ; Burlington House, Bromley, Kent. (P. 1896. V.-P. 1892-93. C. 1894, 1901-02.)
- 1895 MARCH, EDWARD GERALD, M.D.BruX., F.R.C.S.Edin., M.R.C.S.Eng., L.R.C.P.Lond. ; Hon. Medical Officer to the Box Grove Sanatorium, Tilehurst ; Camden House, Castle Hill, Reading.

Elected

- 1885 †MASON, HENRY, M.D., C.M.Glas., M.R.C.S.Eng.; Medical Officer to the Leicester Homœopathic Cottage Hospital and Dispensary; 66, London Road, Leicester.
- 1893 MEEK, WILLIAM OMBLER, M.B., C.M.Edin.; Oxford House, 70, Nelson Street, Oxford Road, Manchester.
- 1893 MILLER, ROBERT GIBSON, M.B., C.M.Glas.; 10, Newton Place, Glasgow.
- 1902 MINTER, LEONARD JNO., M.D.Bru., M.R.C.S., L.R.C.P. Lond., L.S.A.; 54, Marine Parade, Brighton.
- 1892 †MITCHELL, JOHN JAMES, L.R.C.P.Lond., M.R.C.S.Eng.; 1, Howard Place, Stoke-on-Trent.
- 1882†*MOIR, BYRES (*Council*), M.D., C.M.Edin.; Physician to the London Homœopathic Hospital; 16, Upper Wimpole Street, W. (P. 1894. V.-P. 1891, 1892. C. 1892-99, 1900-03-07.)
- 1892 MOIR, DOUGLAS, M.D., C.M.Aberd.; 333, Oxford Road, Manchester.
- 1889 MOLSON, JOHN CAVENDISH, M.D.Exam., Hering Med. Coll., Chicago; L.R.C.P.Lond., F.C.S., F.R.G.S.; 82, Wimpole Street, W., and 17, Vernon Terrace, Brighton.
- 1877 MOORE, JOHN MURRAY, M.D., C.M., L.M.Edin., M.R.C.S. Eng., M.D.New Zealand, F.R.G.S.; Priory House, Church Street, Leamington Spa.
- 1867 MORGAN, SAMUEL, M.D.St. And., M.R.C.S.Eng., L.S.A.; Consulting Physician to the Bath Homœopathic Hospital; Consulting Physician to the Bristol Hahnemann Hospital; 15, Oakfield Road, Clifton, Bristol.
- 1897 MUNSTER, HAROLD VALDEMAR, M.D.Edin.; Medical Officer, Visiting Surgeon and Anæsthetist to the Croydon Homœopathic Dispensary; Hollywood, 109, St. James' Road, and 40, George Street, Croydon.
- 1882 MURRAY, JOHN, L.R.C.P., L.R.C.S., L.M.Edin.; Physician to the Folkestone Homœopathic Dispensary; 15, Trinity Gardens, Folkestone. (C. 1900.)

Elected

- 1895 NANKIVELL, BERTRAM WRIGHT, M.R.C.S.Eng., L.R.C.P. Lond.; Surgeon and Registrar to the Hahnemann Convalescent Home; Physician to the Cottage Home, Cotlands Road; Visiting Surgeon and Physician to the Bournemouth Homœopathic Dispensaries; Consulting Surgeon to the Victoria Home for Crippled Children, Westbourne; Honorary Physician, Y.M.C.A., Bournemouth; Honorary Surgeon to the Bournemouth Ambulance Association; Woodstock, 2, West Cliff Road, Bournemouth.
- 1888 NANKIVELL, FRANK, M.D., C.M.Edin., M.R.C.S.Eng.; 161, Auckland Road, Upper Norwood, S.E.
- 1888 *NANKIVELL, HERBERT, M.D.Edin., M.R.C.S.Eng.; Consulting Physician to the Hahnemann Convalescent Home, Bournemouth; Penmellyn, Richmond Hill, Bournemouth. (P. 1903-04. V.-P. 1901-02.)
- 1893 NEATBY, ANDREW MOSSFORTH, L.R.C.P., L.R.C.S.Edin., L.F.P.S.Glas.; Earl Grey, Saskatchewan, Canada.
- 1885 *NEATBY, EDWIN AWDAS (*Hon. Secretary*), M.D.Bru., L.R.C.P.Lond., M.R.C.S.Eng.; Physician for Diseases of Women to the London Homœopathic Hospital; Consulting Physician for Diseases of Women to the Buchanan Hospital, St. Leonards-on-Sea, and to the Leaf Cottage Hospital, Eastbourne; 82, Wimpole Street, W. (P. 1897. V.-P. 1894-95-96. C. 1896-1903-04. *Librarian*, 1890-1899.)
- 1904 NEATBY, THOMAS MILLER, M.A.Cantab., M.A.Lond., B.C. Cantab., M.R.C.S.Eng., L.R.C.P.Lond.; Late Assistant Physician and Anæsthetist to the London Homœopathic Hospital; 2, Marlborough Road, Manningham, Bradford.
- 1898 NEILD, EDITH, M.B.Lond., L.R.C.P., L.R.C.S.Edin., L.F.P.S. Glas.; Honorary Physician to the Tunbridge Wells Homœopathic Hospital; Mount Pleasant House, Tunbridge Wells.
- 1885 NEILD, FREDERIC, M.D., C.M.Edin., L.R.C.P.Edin.; Consulting Physician to the Tunbridge Wells Homœopathic Hospital and Dispensary; Mount Pleasant House, Tunbridge Wells. (C. 1905-6.)

Elected

- 1891 NEWBERRY, WILLIAM FREDERICK HOYLE, M.D., C.M.University of Trinity College, Toronto, L.S.A.Lond.; Senior Physician and Physician for Diseases of Women to the Devon and Cornwall Homœopathic Hospital; 8, Queen Anne Terrace, Plymouth.
- 1892 NICHOLSON, THOMAS DICKINSON, M.D., C.M.Edin., M.R.C.S.Eng.; Physician to the Clifton Homœopathic Dispensary and Hahnemann Hospital, Bristol; 2, White Ladies Road, Clifton, Bristol.
- 1876 NORMAN, GEORGE, M.R.C.S.Eng., L.S.A.; 12, Brock Street, Bath.
- 1893 *ORD, WILLIAM THEOPHILUS (*Vice-President*), L.R.C.P.Lond., M.R.C.S.Eng.; Physician Hahnemann Home, Bournemouth; Physician Bournemouth Homœopathic Dispensaries; Greensted, Madeira Road, Bournemouth.
- 1895 †ORR, FREDERIC LAYTON, M.D.Lond., M.R.C.S.Eng., L.R.C.P.Lond.; 23, Clifton Hill, London, N.W.
- 1886 PINCOTT, JAMES COLE, M.R.C.S.Eng., L.R.C.P., L.M.Edin.; Hon. Surgeon to the Tunbridge Wells Homœopathic Hospital and Dispensary; Culverden Grange, 12, St. John's Road, Tunbridge Wells.
- 1862*†POPE, ALFRED CROSBY, M.D.Phil., M.D. (Hon.) New York, M.R.C.S.Eng.; 10, Approach Road, Margate. (P. 1881. V.-P. 1873-74.)
- 1902 †POWELL, JOSIAH CECIL, M.R.C.S.Eng., L.R.C.P.Lond.; Anæsthetist and Clinical Assist. to Ophth. Departmt., London Homœopathic Hospital; 5, Alfred Place West, Thurloe Square, S. Kensington, S.W.
- 1898 †PRITCHARD, JOSEPH JAMES GAWLER, L.R.C.P.Lond., M.R.C.S.Eng.; Heathfield, West Park Street, Dewsbury.
- 1868 †PRITCHARD, JOSIAH, M.R.C.S.Eng., L.S.A.; 77, Richmond Road, Montpelier, Bristol.
- 1898 †PRITCHARD, WILLIAM CLOWES, B.A., M.R.C.S., L.R.C.P.; Surgeon to the Buchanan Hospital, St. Leonards-on-Sea; Ophthalmic Surgeon to the Hastings and St. Leonards Homœopathic Dispensary; Roden House, Church Road, St. Leonards.

Elected

- 1893 PROCTOR, PETER, M.R.C.S.Eng., L.R.C.P.Edin., L.S.A.;
17, Hamilton Square, Birkenhead.
- 1884 PULLAR, ALFRED, M.D., C.M.Edin.; 34, Ebury St., Eaton
Square, S.W.; and 184, Sheen Road, Richmond, Surrey.
- 1883 PURDOM, THOMAS EADIE, M.D., C.M.Edin., L.R.C.P., L.R.C.S.
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George Street, Croydon.
- 1894 RAMSBOTHAM, SAMUEL HENRY, M.D.Edin., M.R.C.S.Eng.;
Honorary Medical Officer to the Leeds Homœopathic
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68, Great George Street, Leeds.
- 1892 *REED, WILLIAM CASH, M.D., C.M.Edin.; Joint Gynæcologist
to the Hahnemann Hospital, and Honorary Gynæcologist
to the Roscommon Street Dispensary; 15, Princes
Avenue, Liverpool. (V.-P. 1900-01-06. P. *Liverpool
Branch*, 1902.)
- 1872 †REID, LESTOCK HOLLAND, M.R.C.S.Eng., L.R.C.P.Lond.;
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- 1894 RENDALL, JOHN MURLY, L.R.C.P., L.R.C.S.Edin., L.F.P.
& S.Glas.; 2, Coates Crescent, Edinburgh.
- 1885 RENNER, CHARLES, M.D.Wurzburg, L.R.C.P.Lond., M.R.C.S.
Eng.; 75, Upper Gloucester Place, Dorset Square, N.W.
- 1893 ROBERTS, WILLIAM HENRY, L.R.C.P., L.R.C.S.Edin., L.M.;
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- 1878 *ROCHE, ELEAZER BIRCH, L.R.C.P.Lond., M.R.C.S.Eng.,
L.M.; Physician to the Norwich Homœopathic Dis-
pensary; Honorary Medical Officer to the Orphans'
Home, Norwich, and to the Norwich City Mission;
27, Surrey Street, Norwich. (C. 1897.)
- 1892 ROCHE, WILLIAM, M.R.C.P.I., L.M., M.R.C.S.Eng.; The
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Elected

- 1901 ROSS, PERCY ALEXANDER, B.A.Cantab., M.R.C.S., L.R.C.P.
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Sea, Southend.
- 1891 ROSS, WILLIAM, L.R.C.P., L.R.C.S.I., L.M.; Physician to
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Giles' Street, Northampton.
- 1892 †ROWSE, EDWARD LEOPOLD, M.D.BruX. (Honours), L.R.C.P.
Lond., M.R.C.S.Eng.; Garryowen, Putney Hill, Putney,
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- 1880 †SANDBERG, ARTHUR GREGORY, M.D.Verm., L.R.C.P.,
L.R.C.S., L.M.Edin.; 72, Streatham Hill, S.W.
- 1893 SANDERS, HORACE, L.M., L.S.A. Lond.; Clinical Assistant
to the Gynæcological Department, and Clinical Assis-
tant for Diseases of Children, London Homœopathic
Hospital; 156, Haverstock Hill, Hampstead, N.W.,
and 77, Camden Road, N.W.
- 1892 SCRIVEN, GEORGE, M.D., B.Ch.Dub., L.M., J.P., F.R.G.S.;
Physician to the Dublin Homœopathic Dispensary; 33,
Stephen's Green, Dublin.
- 1885 SEARSON, JAMES, M.D.BruX., L.R.C.P., L.R.C.S.I.; Assist-
ant Physician to the London Homœopathic Hospital;
64, Seymour Street, Portman Square, W.
- 1884 SHACKLETON, HENRY, B.A., M.D.Dub., M.R.C.S.Eng.,
L.M.K.Q.C.P.I., L.M.Rot. Hosp., Dub.; 12, West
Hill, Sydenham, S.E.
- 1883 *SHAW, CHARLES THOMAS KNOX (*Council*), L.R.C.P.Lond.,
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Surgeon to the London Homœopathic Hospital; Con-
sulting Surgeon to the Buchanan Cottage Hospital,
St. Leonards; to the Tunbridge Wells Homœopathic
Hospital; to the Phillips Memorial Hospital, Bromley;
to the Lansdown Homœopathic Hospital, Bath; to
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and Cornwall Homœopathic Hospital, Plymouth; Con-
sulting Ophthalmic Surgeon to the Hastings and St.
Leonards Homœopathic Dispensary; 19, Bentinck
Street, Cavendish Square, W. (P. 1891. V.-P. 1890.
C. 1900-07. S. 1892-98, 1900-04.)

Elected

- 1885 SHAW, FRANK HERBERT, M.R.C.S.Eng.; Surgeon to the Buchanan Hospital, and to the Hastings and St. Leonards Homœopathic Dispensary; The Gables, Pevensey Road, St. Leonards-on-Sea.
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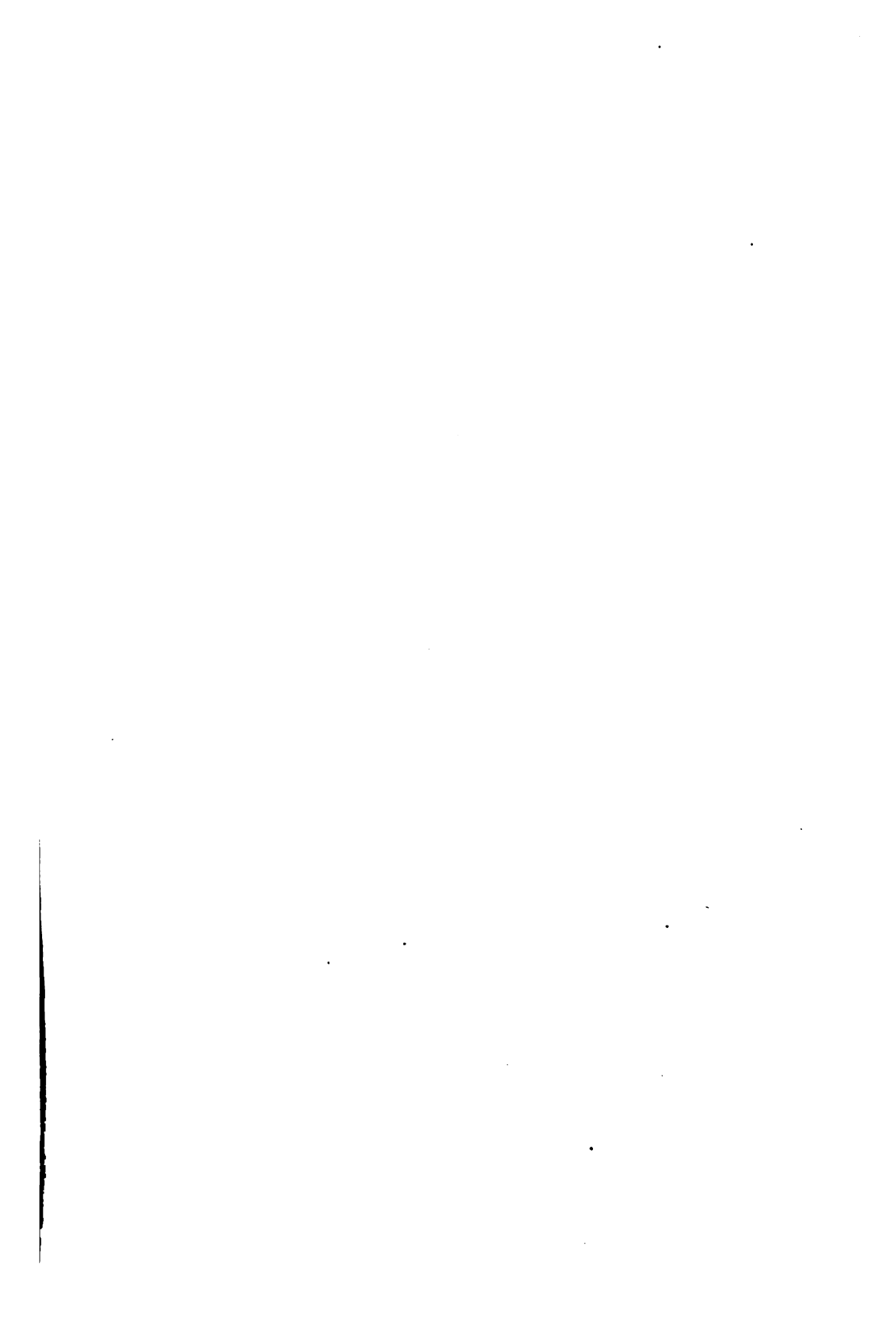
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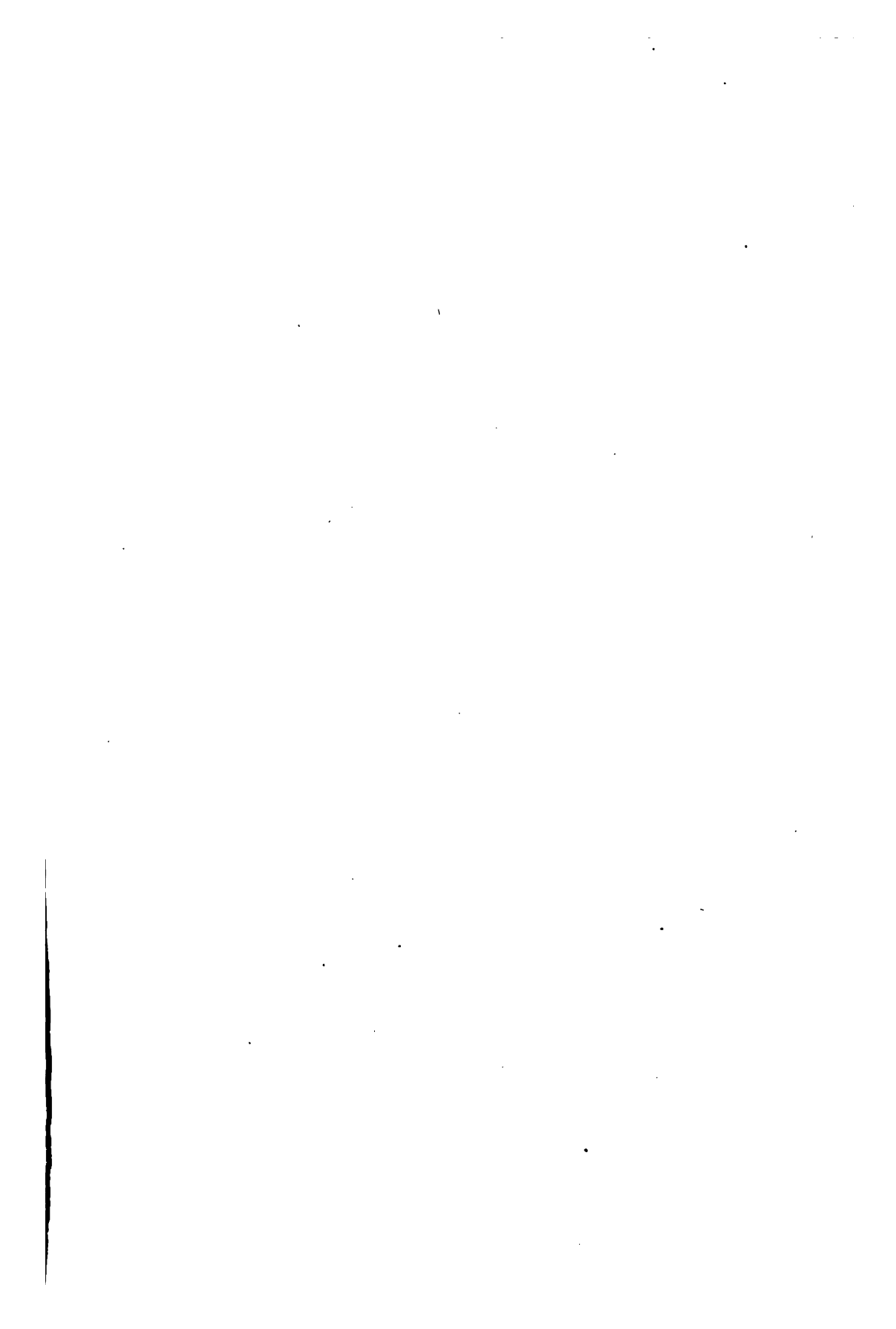
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PRACTICAL NOTES ON LATERAL CURVATURE
OF THE SPINE.¹

BY LIEUT.-COL. H. E. DEANE, M.D., R.A.M.C. (retired).

I AM not trying to pose as a specialist, nor do I claim to have overcome the difficulties connected with lateral curvatures of the spine, but I am inviting your attention to some of the difficulties that present themselves to any student of the subject, and which are practically before me daily in the physical department of the hospital.

First, as to a *definition* of a lateral curvature of the spine; and it is an important point because one's opinion of prognosis and probable result of treatment will be coloured by the conception entertained as to what constitutes a lateral curvature.

Tubby says: Scoliosis is a rotation of vertebræ round a vertical axis, but not necessarily combined with lateral deviation or bending of the spine to either side.

Roth says: Lateral curvature of the spine (scoliosis) is a

¹ Presented to the Section of Medicine and Pathology, December 5, 1907.

deformity characterized by lateral deviation and rotation of the spinal column, nearly always accompanied by more or less exaggeration or diminution of the normal antero-posterior curves.

Adams says: Lateral curvature may be defined as a distortion of the spine in which the bodies of the vertebra deviate laterally in a horizontal direction, with or without corresponding deviation of the apices of the spinous processes. He does not admit that lateral curvature ever exists as a functional condition, but that the condition is necessarily associated with certain structural changes, and he thus excludes what some authorities call lateral curvature of the first degree, in which the crookedness of the figure is capable of complete rectification, though temporarily, by the patient's own efforts. He says that the much-vaunted cures of spinal curvature have been largely derived from this class of weak spine, a curvature being assumed where no real curvature existed.

It is not surprising that these three definitions should differ when the movements of which the normal spine are capable are the subject of contradictory teaching. First, as to the extent to which lateral flexion is possible without rotation.

Barwell says it is possible to a very slight extent without rotation; other writers say that a slight degree of rotation is included in every side flexion of the spine.

Morris, in his "Anatomy of the Joints," says that rotation in the loins is permitted to a considerable extent and is greatly increased in the rotatory lateral curve of the spine; horizontal motion of the arches and processes can occur round an axis drawn through the central part of the bodies and semi-fluid nuclei of the intervertebral substances.

Humphrey, in his work on the skeleton, says that, from actual experiment, rotation ceases between the tenth and eleventh dorsal vertebræ, no rotation at all being practicable in the loins. It is obvious that the centre of any such rotation must be somewhere behind the vertebral canal, which would involve a shifting of the vertebral bodies upon one another in a horizontal plane quite incompatible with

the structure of the intervertebral substances, that the disposition of the articulating facets will prevent horizontal rotation of one vertebra on the other round any other axis than that just indicated, and therefore that it is incompatible with the only horizontal rotation which the intervertebral substances permit, namely, on an axis drawn through their own central fluid nuclei.

Adams says: Horizontal rotation of the bodies of the vertebræ exists only in the more limited degree, if indeed it can be said to exist at all, in the lumbar region, where lateral curvature frequently commences, and in the dorsal region the natural movement of horizontal rotation of the bodies of the vertebræ exists only to a very limited extent.

With reference to this last point Humphrey says that rotation is free in the upper dorsal region.

Tubby says: A vertebra does not rotate on its central axis.

It is not necessary to refer to the confirmed structural changes of an advanced and incurable curvature, but the initial mechanism of the condition is important, and here again we have conflicting statements.

Adams says: When we lean the body to one side the pressure is thrown almost exclusively upon the articulating processes of that side, hence, when a habit is acquired of resting upon one hip, the sharp edges of these small points of bone receive the weight of the entire body; in lateral curvature we have a distinct demonstration that the articulating processes give way more extensively than any other parts of the column.

Wide says: It is certain that in an incipient scoliosis the changes lie exclusively in the intervertebral discs and not in the vertebræ themselves, but as soon as the scoliosis is somewhat more considerable the vertebral bodies also take part in the process.

Tubby says: The intervertebral pressure caused by lateral movements falls obliquely on the upper planes of the bodies of the vertebræ.

Next a few remarks as to *causation*.

Roth says: Inequality in the lengths of the lower ex-

tremities as a cause of lateral curvature is conspicuous by its absence.

Nunn, in his book on "Growing Children," says : That lateral curvature, owing to an inequality in the length of the lower limbs which is constantly overlooked, indirectly induces various kinds of ill-health, and short of that, pains in the back and aching spine, incapacity for ordinary avocations, and quickly brought on fatigue.

Wide says : The difference of length between the two halves of the body is often enough quite inconsiderable, one centimetre or even less, but the static dispositions arising from it can be the origin of a typical lumbar scoliosis.

As regards the influence of carrying weights, Müller, a German orthopædic surgeon, says : If a child carry a weight in one hand or under one arm the corresponding shoulder will be dragged down, and necessarily the spinal column will make a curve in the opposite direction, that is, away from the burden.

Barwell says : Carrying weights constantly on one and the same arm puts a stress on the glenoid end of the scapula which is chiefly supported by the serratus, and this muscle with its rotating effects on the ribs is a large factor in producing the deformity ; but besides this, to counterbalance the load by some of the body weight, the erector spinæ of the opposite side is brought into play, and the dorsal spine is curved towards the side of the burden. This is the reason why in the class of girls who attend hospital we find a considerable portion with left dorsal curvature, much of their early life being spent in carrying younger brothers and sisters on the left arm.

So here we have two directly contradictory statements regarding the direction of a dorsal curve when a weight is carried in one hand. I shall refer to this again presently.

Barwell goes to a considerable length in his book to show that the dorsal vertebræ are rotated in a horizontal direction by the serratus magnus, which converts the ribs into levers of the second order, and the same action is ascribed to that muscle by Morris, by which he also partly accounts for a convex dorsal curve.

Adams says: That Fischer showed the fallacy of this theory, which is clear when we consider that before the serratus can act the scapula must be fixed by the trapezius and rhomboids, and therefore the spinous processes from which they take origin must be fixed, so that the vertebræ must at the same time act as fixed points and become rotated, an evident impossibility.

Wide says: Some authors presume that those muscles which indirectly by means of the scapula and clavicle fix the working arm to the spine, by drawing the spine to their side cause the scoliosis, but such is, however, not the case. "The direct cause of the origin of the scoliosis must be sought in the desire to fix the yielding spine, and in this way give the muscles named a secure point of attack, and this they obtain if the muscles on the opposite side contract. If we assume that the right arm, as is generally the case, is used in working, then whenever this arm lifts a weight or is kept raised and performs work, the muscles on the left side of the spine are contracted, in consequence of which the spine will be gradually carried over to the right." So here we have two contradictory theories of irregular muscular action to account for a dorsal curve, and the objection just quoted to the one applies equally to the other, as there is no more conceivable reason why the spine should act as a fixed point and at the same time be movable when the muscles on one side are concerned than on the other.

There is considerable diversity of opinion as to the point of origin of lateral curvature.

Adams doubts if it can rationally be inferred, or in any way demonstrated by cases, that a second curvature takes place after the first is formed; both curves take place simultaneously or nearly so; and Humphrey says the same thing.

Barwell dilates on the difference of the external signs where the primary curve is dorsal or lumbar, though, he says, the differentiation can only be made in the less severe cases.

There are other what I will call natural contradictions connected with the subject, which have a bearing on the myopathic theory of the origin of spinal curvature.

Many delicate children with feeble muscular development never get spinal curvature. Strong healthy children always running about get spinal curvature.

Children with one leg shorter than the other do not always have curvature. A child with the right leg short may have a lumbar curve to the left. Children with rickets do not, except rarely, have spinal curvature till about or after the age of 12; so says Adams.

Now, a few points concerning the *prognosis* :—

Barwell takes the favourite classification of curvatures into three stages, first, where the faulty position can be corrected by the patient voluntarily; second, where neither patient nor surgeon can fully correct the deformity, and where there is some osseous change; third, where the deformity has increased and the osseous changes have become confirmed. He says that the first and second stages are curable, and the third may be, and he believes it to be, in patients aged under 15. After 18 or 20 the third stage is incurable, though it may be greatly benefited. He gives no time.

Roth says that osseous deformity of the vertebræ, even the slightest, is, to that extent, incurable, though further deformity can be prevented. Slight cases of lateral curvature, without any osseous deformity, can generally be cured by one month's daily treatment by posture and exercise. Other cases require on an average three months treatment to effect either a cure when curable or the utmost improvement possible where there is more or less osseous deformity.

Bigg criticizes this thus: "The whole of which proposition is nonsense."

I may say that Roth juggles somewhat with the word cure, but we need not follow his gyrations.

Bigg says that if a case is caught early a very few months may suffice to bring the spine straight. If first dealt with after it has been going on for a couple of years, then it would naturally take a couple of years to get restoration of shape. The fact is, that the process of restoration is a reversal of the process of lapse, and roughly, therefore, takes the same time to complete.

Shaw says the treatment in many cases will have to be systematically carried out for seven to ten years, and in more favourable cases much good can seldom be effected in less than three or four years.

Wide says that scoliosis of the first degree can disappear altogether; of the second degree can be stopped, but not quite cured; and of the third degree cannot be improved by treatment. The patient should be told beforehand that the treatment may last for years, and that it may be necessary to repeat it as soon as the slightest change for the worse is noted. It occurs to me, in face of these conflicting opinions, that some men are taking an unnecessary amount of trouble over their patients, whom they must be putting to unjustifiable expense, or that other men are not doing all that they might or ought for their patients.

Adams says that extreme uncertainty characterizes the progress of lateral curvature. He says that the largest proportion of cures is yielded by cases in which local or mechanical causes predominate, the general health being good, and under treatment extending from one to two years.

Further, he says that when curvature occurs under the age of 12 constitutional causes largely predominate, and are of a very unpromising character.

The same hopeless contradiction exists on the subject of *treatment*, and I will give a few illustrations applying to two modes of treatment only, that by mechanical appliances and the gymnastic treatment. Tubby says that every effort should be made to minimise rather than magnify the possibilities of a slight case, both to the parents and the child.

Barwell relates that patients with considerable deformity of the spine have been taken to him with the history that several years ago such and such a surgeon had assured the mother that the child would grow out of it, and that everyone has, or ought to have, a certain lateral bend of the dorsal spine. He notes two cases of disastrously deformed girls who had been thus advised.

When we read that eminent orthopædic authorities have written "that where lateral curvature existed in any marked

degree, and before it amounted to an external deformity, it is an essentially incurable affection," it is easy to understand the possible evils of ignoring the early stage, which will not induce either parents or children to appreciate the necessity of carrying out and persevering with treatment in those stages, with a view of preventing disastrous results.

Regarding treatment by appliances, Little, on "Deformities of the Human Spine," says that they are not adapted to the removal of the primary cause of lateral curvature; they cannot, therefore, be employed as curative means.

Bigg says that the mechanical principles of treatment are too well and too stably founded to be upset; like mathematical, mechanical science is a fixed one, and its principles once established have become incontrovertible.

Shaw has no hesitation in saying that it is impossible to straighten a curved spine by any mechanical means in the same manner as we can straighten a bent knee, but in combination with other means it is quite possible to cure a slight curvature of recent formation in young persons.

As regards the gymnastic treatment Shaw says that exercises alone can be successful only in cases of distortion where the bones are not yet misshapen, and he remarks that he is often told of extraordinary cures effected merely by exercises, but he has not been able to see any such instances.

Bigg says that gymnastics will no more prevent or cure actual spine curvature than they will prevent or cure scarlet fever.

Adams discusses the foundation of the gymnastic treatment, and asks: "Cannot we by special muscular exercises develop only the muscles which would tend to correct the spinal curvature?" He then says, "I have no confidence in the curative effects of any system of special muscular exercises whereby the muscles on one side of the spine are sought to be particularly developed, owing to the impossibility of stating precisely in any given case the exact muscles and portions of muscles the increased power of which would act beneficially on the curvature, and the impossibility of strengthening these particular muscles and portions of muscles, if they could be selected, without at the same time

strengthening other muscles, the increased action of which would at least neutralize their effect. The gymnastic treatment must therefore be rejected as a system capable of curing lateral curvature of the spine; but when used judiciously, and in conjunction with other means, in cases of slight lateral curvature associated with muscular debility, there can be no doubt of the value of a well-regulated system of gymnastic exercises." Wide says that Swedish gymnasts have, almost without exception, condemned the mechanical and antistatic methods, probably because they have never had instruction in the application of these methods, and have thus not been able to see the use of them. They have considered the gymnastic method to be the only one necessary, owing to the opinion that all scolioses depend on disturbed muscular activity. At the Gymnastic Orthopædic Institute at Stockholm recumbent apparatus as well as a gymnastic treatment have been used since the seventies, from which time the portable mechanical apparatus has somewhat taken the place of the extension bed. He goes on to describe the portable apparatus used.

One more point regarding treatment by exercises. Barwell says that in a lumbar curve that muscle which skirts the convexity is the weak one, to which invigorating exercise must be directed, and the same with a dorsal curve.

Wide says that the muscles on the concavity of a curve are the stronger.

Here I may say that one of the greatest difficulties connected with the subject is our want of knowledge of the action of muscles in normal people when performing even simple exercises—ignorance not only of the fixation and the synergic muscles, but even of the prime movers. This, moreover, when the muscles are acting in their usual relationship of points of origin and insertion, but when we try to reverse these points, as is often done in treating spinal curvatures, our need of knowledge becomes emphasized.

Time will not permit of going into further details regarding the origin of special curves, but I will briefly epitomize some of my observations and conclusions formed since I have had charge of the physical department of the hospital.

The theory of irregular muscular action pure and simple as a cause of curvature may be dismissed. At the foundation of the curves is an unequal distribution of the body weight, acting most probably on a spine the normal relationship of whose antero-posterior curves is altered, an inequality which is in action little and often; and the circumstances under which the unequal distribution occurs form part and parcel of the daily life of the child, and even when it has persisted long enough to call attention to a shoulder or a hip growing out it is more than likely that the cause will be looked for elsewhere. The unequal distribution of weight may be due to a habit of always balancing on the same leg, sitting in a bad posture when writing lessons or otherwise, sitting cross-legged, or following certain occupations necessitating a certain posture, as flower-making, needlework and so on. It matters not what it be, the distribution of body weight is not straight down the spine, which accordingly has to bend to meet the weight. In a recent article by Dr. Duke, of Rugby, on the physical examination of 1,000 boys at their entrance to the school, he says 445 had lateral curvature of the spine, which are "among those deformities incidental to unnatural school methods and disfiguring effect produced by faulty postures permitted or compelled during school life, so that the supple bones become moulded imperceptibly but surely into abnormal forms." If young patients be asked to sit at the table and write it is usually easy to see how the curvature, if not originally produced, is maintained—and the same thing is observable in their standing and sitting postures when not at a table. Now, if one could get a contrary posture carried out with the same regularity and frequency with which the faulty posture is adopted, no further treatment would probably be necessary to rectify the curvature, but that is impracticable. Indeed, a great obstacle to treating these cases is that one cannot see the patients often enough or long enough, and there is often a further obstacle in badly fitting clothing, and still further it is very difficult for patients to carry out any treatment at home; whether from want of time, opportunity, facilities, or inclination—the fact remains. Herein lies the great advantage of wearing

a properly made jacket as recommended by Bigg, which tends to make patients constantly hold themselves straight. Soon after I took charge of the department it was evident ~~that~~ the patients there were not using their muscles to anything like the ~~advantage~~ they might, and that some of the exercises and manipulations had no practical relation to the curvature. I reorganised the department accordingly. I have been trying to produce spinal curvature in healthy men by muscular action, especially in the dorsal region, but I have so far been unable to satisfy myself that it can be done. Perfect imitations, as regards external signs, can be produced by weights. In this relation I want to mention one fact I have observed. If a normal man stands on the right leg, balancing himself with the left, the lumbar spine, of course, curves to the left, but it does so to a much less degree than it curves to the right when he stands on the left leg, balancing with the right. With the feet in exactly corresponding positions the difference is very marked. A solution suggests itself to me in this way: that as any weight is more frequently carried by the right arm, which means that the base of the spine curves to the right to get under the weight, the frequent repetition of this produces a greater mobility in that direction. You remember my saying just now that one authority states that a nurse carrying a baby on one arm gets a curvature of the spine towards the weight, and another authority states the contrary. What I find happens is this, and I do not say without exception, though I have not yet seen the exception: the lumbar spine is curved towards the weight and the dorsal spine away from it; nor have I yet seen a case in which the whole spine curves simply in one direction either towards or away from the weight. At the same time as the lumbar spine curves towards the weight, the corresponding hip is lowered. This brings me to the first point in treatment: level the pelvis if necessary by raising the boot, so as to keep the correction constantly at work. You may or may not, but most likely will not be able, to get a faulty sitting position rectified; if you can, do. If you find the patient always resting on the same leg, tell her to rest on the opposite one whenever she

can think of it. Some will think of it, others not; the same thing applies to crossing the legs. You can observe easily for yourselves how a simple action like that tends to perpetuate a curvature. I will here refer to what is known as the best possible positions into which the patient can be placed; and for example I take one, the position of holding one arm perpendicularly upwards and the other horizontally outwards, to correct a dorsal curve.

On November 13, 1885, a patient with severe curvature was exhibited at a London medical society. Before treatment was commenced, the patient was shown by a noted exponent of posture and exercise, as he wished to demonstrate later the effects of his treatment. She was asked to maintain this keynote posture for a certain time daily; and on March 12, 1886, she was shown again, the surgeon affirming that her general carriage was much more upright. Mr. Keetley, who on both occasions measured the patient, conclusively proved that the curvature was in no way altered. Such improvement of general health and strength as had undoubtedly taken place was the natural result of her having ceased to wear a spinal support. One more instance of an actual case—and take whichever method of treatment you will, either that of exercising the muscles on the concavity or convexity of a curve. There was a right lumbar curve, beginning at the third lumbar vertebra; a lower dorsal, convex to the left beginning at the eleventh vertebra; an upper dorsal, convex to the right beginning at the sixth vertebra. Suppose you try to correct the upper dorsal curve by exercising the muscles in the concavity. We have the rhomboids attached to the fourth or fifth upper dorsal vertebra, the trapezius to all the dorsal vertebræ, and the latissimus dorsi to the six lower vertebræ. If you can succeed in getting a pull on the fourth or fifth upper dorsal vertebræ at the spinous processes where the rhomboids are attached, what are you doing? Are you pulling the spinous processes more into the concavity and thus rotating the bodies more to the convexity and aggravating the curve? You may think you are, and say you would exercise the rhomboids on the convex side, in which case can you

demonstrate the possibility of rotating vertebræ by pulling in the spinous processes so that the bodies revolve the opposite way?

Next, if you exercise the muscles on the concavity of the right upper dorsal convex curve, how are you going to eliminate the portions of the muscles on that side which are attached to the lower dorsal vertebræ and which are convex to the left? Again, take the lumbar curve; suppose you try to exercise the muscles on the convex side, how are you going to eliminate those portions of the muscles which are attached to the lower dorsal vertebræ and which are convex to the left? I have answered the questions for myself and you may be able to work it out for yourselves, but whatever you do avoid the attitude of thinking a thing is because you think it must be; first ascertain if it is. The former frame of mind will assuredly, as it ever has, lead into error. We all have a tendency to see things as we wish to see them. I know of an incident which happened recently, of a lady professor and examiner on this subject giving a demonstration of the treatment of spinal curvature, and explaining to the class how the lunge position perfectly corrected the deformity of the case being shown. The patient was lunging with the lowered hip to the rear, lowering it still more. When the class had apparently grasped and noted how to make a patient lunge, a critical outsider present suggested the lunge should be made with the other foot to illustrate the difference, when the demonstrator had to draw the attention of her class to see how much more this position improved the deformity. Time will not permit of further details, and as these notes are designed to draw attention to a few difficulties I will dismiss my own line of work in a few words. I know I can either correct or tend to correct curvatures by regulating the body weight, and therefore I do so by utilizing weights. Then I set about increasing the general mobility and suppleness of the whole spine and limbs. I make the patients use their own muscles as powerfully as possible within their limits, and for this I use apparatus of all kinds. I get at a dorso-lumbar curve by one exercise, getting at the dorsal, as it were, through the lumbar, and thus tending to untwist the whole spine.

Lastly, you will get better results if you can manage to get a patient to do even one exercise half a dozen times a day at any intervals convenient. I have lately had a remarkable instance at the hospital of that in a young girl with a severe curve, causing one leg to be 4 in. shorter than the other, which became much aggravated during previous treatment by a notorious quack. I will now demonstrate two or three points referred to in these notes, on patients attending my clinique at the hospital.

Dr. SPIERS ALEXANDER (in the chair) considered that a paper on physical culture illustrated the catholicity of the British Homœopathic Society. The subject of physical culture was one which had become more and more important as an adjunct to their medicinal measures of treatment. There was no doubt that exercises were exceedingly valuable and really effectual in certain conditions. For instance, in the Gynæcological Section even uterine displacements had been corrected by means of suitable exercises. Again, it was known that in the condition described as heterophoria—that is, imbalance of the ocular muscles—suitable exercises by means of prisms had a curative effect upon the defect; and in like manner it was evident from what had been said that evening that suitable exercises were useful in the correction of scoliosis. Although Dr. Deane had begun his address by saying he did not speak as a specialist, yet he (the President) thought the author had exhibited a very large amount of specialised knowledge in the facts which he had brought forward; and although he prefaced his paper by saying that it was more of an interrogative than of an affirmative character, yet the demonstrations which had been given would be useful in directing attention to the accurate physiological manner of dealing with this disease.

Mr. DUDLEY WRIGHT thanked Dr. Deane for his very instructive paper, and particularly for the illustrations which he had brought forward, which were admirable. The movement of the rotation of the spine, which he understood was the outcome of the author's own particular work, was exceptionally good, one that he (the speaker) had never seen before, and which, he thought, was likely to be extremely useful in the class of cases under discussion. Mr. Wright asked Dr. Deane if he found that, apart from the exercises, he had been able to control the pain which so frequently troubled these patients. Before the author's department was opened in the hospital, he (the speaker) was in the

habit of giving patients tellurium and instructing them as well as he could to do exercises for themselves. It was his experience that the tellurium gave a very great measure of relief to the pain in the back ; and in spite of the rather rough and ready method used to correct the deformity—which was not always very successful, he was bound to say—the tellurium certainly seemed to act beneficially. He obtained the hint from Mr. Gerrard Smith, who some years ago had administered tellurium in a certain number of cases and found it do good. There was a patient who had been in the hospital who had improved very materially under the care of Dr. Deane. The patient's condition had been diagnosed outside in several ways ; in one hospital it was put down to some organic disease of the spine. The patient was now at home and so much improved that people in the district had sent up several other patients ; the case had evidently done a great deal in spreading the repute of the hospital. He hoped the author would carry on his work with like success in other cases.

Dr. MADDEN asked if in those cases which the author had referred to—where, by standing on the right leg the curvature was so much greater on the right side of the lumbar region than it was on the left side when standing on the left leg—the patients were all right-handed patients. Had the author examined any who were left-handed or ambidextrous, and, if so, had he found any difference in the mobility of the spine ? When the author spoke of the necessity of using mechanical apparatus, did he refer to permanent mechanical apparatus in the form of jackets and so forth, because it seemed that one of the great points of some authorities was to do away with that. Dr. Madden had hitherto believed that apparatuses were absolutely harmful in all cases which had not any bony deformity. If it were proved by later knowledge that that was not the fact it would be well to know what were the points to which attention was necessary in applying mechanical apparatus, and also to what extent it was safe and possible without making the muscles rely upon it. It did seem an extraordinary thing that specialists and anatomists had as yet been unable to agree as to which side of the curvature the muscles were strong, and on which side they were weak. He confessed that he had hitherto had no doubt that the strong muscles were on the concave, and the weak muscles were on the convex side. There appeared to be equal authorities on both sides, and apparently the author said it did not matter—that the muscles were weak all round. But if that were so, why was the curvature persistent on the one side ? He (Dr. Madden)

thought if there were only a general flabbiness of the muscles the spine would wobble.

Dr. GOLDSBROUGH offered two or three considerations on lateral curvature from another point of view than that presented by the author of the paper. Dr. Goldsbrough's points did not contravene Dr. Deane's principles, but rather suggested the *rationale* of them. It had to be remembered that muscles in the human subject never contracted singly—singly they were but trophic endings of the motor nerves. It was always a group of muscles which acted, and this fact had to be taken into account when considering abnormalities. Furthermore, it had to be remembered that innervation of the group did not take place from the spinal cord at all (the trophic and reflex centre), but from centres in the brain in intimate association with other motor and sensory centres. In looking upon a case of lateral curvature, it should be regarded rather from the brain point of view primarily, and from the question of individual nerves and muscles secondarily. That was the first principle which Dr. Goldsbrough wished to submit for consideration. Another was, that the motor areas of the brain were developed in a very diverse way, and movements which were more complicated and more associated with the higher regions of the brain had a later and less stable development than those connected with the lower regions. With regard to the movements of the trunk which were relatively more stable, they were represented bilaterally in the brain, and that fact explained a good deal which was inexplicable from the simple muscular action point of view. Another thing which had to be taken into account in considering such cases was the influence of the cerebellum. The cerebellum was charged with the duty of maintaining the equilibrium of the body, and that equilibrium was constantly changing. Every movement of the trunk changed the centre of gravity, and this was influenced also by the initiation of movement from the cerebral cortex and by reflex action from below. The question of exercise for neutralising the curvature was really after all a secondary matter, the primary thing to consider being the patient's mind and the patient's own voluntary control of certain spheres of movement. Nothing Dr. Deane had said controverted that point, but it was another point of view than he had submitted which, in Dr. Goldsbrough's opinion, should be taken into consideration first. It did not seem at all surprising that the author could not induce lateral curvature in healthy men, because their nerve centres were thoroughly settled down,

and it was not at all likely that any new habit could be formed unless some new pathological state arose in the spinal column as a whole or in the nerve centres. It was during the process of development and adolescence that abnormal curves were obtained. Dr. Deane had not said anything about rest as a principle of treatment in cases of lateral curvature. In the old days, whenever one heard of a case of lateral curvature, rest was considered one of the primary principles which had to be adopted in treating such cases. Dr. Goldsbrough wished Dr. Deane's opinion as to the intervals of rest as well as intervals of special exercise. Dr. Goldsbrough thought rest, as well as special exercise, should be a principle of treatment. He had been accustomed in years gone by in general practice to insist that patients suffering from such a complaint should have regular intervals of lying down in a position which would as far as possible in the resting state correct the curvature; and he believed that such a principle of treatment was a very useful one in association with the exercises which the author had suggested.

Dr. ROBERSON DAY considered that as in all things preventive treatment was certainly the best, not much had been heard about that. He supposed there was no disease which was more easily prevented, and regarding the difficulty in straightening a curvature of the spine there was no disease where preventive treatment was more important than the one under discussion, and that was a reason why practitioners should all endeavour to urge the periodic medical inspection of school children. It was often sad to see patients coming along with the disease in an advanced stage, the parents having been the first to diagnose it, whereas, if there was periodical inspection by a medical man, the incipient curve would be detected. That was perhaps the only satisfactory stage in which to get the patient in order to hold out a hopeful prognosis with regard to treatment. When a patient came to the hospital with a shoulder growing well out—which was the first thing the parent noticed—the curve had been in existence for a long time and the rotation was considerable, and it was impossible then to rectify the deformity. Therefore *preventive* treatment, and special treatment in the early stages, were most emphatically to be insisted upon. The complaint occurred at certain times in life, during adolescence particularly, and it was much more frequent in girls than in boys. During the rapidly growing years of life was the time when special care should be taken and emphasis laid upon the point of periodic inspection. With regard

to treatment, he had found in cases which he had had under his care that the levelling of the pelvis had always been attended with benefit. Very often the pelvis had been tipped by inequality of the legs. It was important to measure the legs and to try the effect of placing a book or some support under one leg or the other to see if that in itself would correct the deformity. A thickened sole would very often largely help to rectify the position. He remembered that Mr. Gerrard Smith had insisted upon that, and there had been other practitioners who had suggested using a wedge for a seat, and also the saddle of a bicycle, in a tilted form to raise the hip which appeared to be low. Dr. Robertson Day drew attention to an interesting article from the Bonn clinique, where the writer described a method of treatment which in experience there had been found very useful. It consisted of an apparatus for warming the spine in the first place so as to relax all muscular and ligamentous tension, and, having done that, to subject the patients to crawling exercises. The writer said that his attention had been drawn to the subject by watching the mobility of the spine in the lower animals, such as the dog. As a dog ran it would be noticed that the spine was constantly moving. Having prepared the spine by artificial heat, the patient was set to crawl in circles round a room. He (the speaker) did not know whether the patients always appreciated such treatment, but he had tried it in one case, he thought with benefit. The patients were set to make a circle, the centre being on the side on which the convexity of the spinal curvature was.

Dr. DEANE asked if it was a dorsal or lumbar curve.

Dr. ROBERTSON DAY replied, the principal or greater curve. He found that resting on the back, to which Dr. Goldsbrough had drawn attention, was exceedingly valuable, and he advised that the patient should not only lie on the back but in a prone position on the face. He found that patients often submitted to that position with much greater readiness than lying on the back; they could prop themselves up on their elbows and read or do any simple work, and it also took off the weight of the shoulder and head from the spine, thereby giving great rest. There were many methods of treatment that had been used with success in different ways, and they all seemed to do good. He thought Dr. Deane had summed up the whole question of treatment when he said, "By increasing the general muscular tone we effect a cure as far as is possible." All exercises tended to do that, and so, by strengthening the erector spinæ and the back muscles the back was thereby strengthened and straightened.

Mr. KNOX SHAW said he had not intended to intervene in the debate, but a remark by Dr. Goldsbrough had put a thought into his mind which might be worth a moment's consideration. Dr. Deane had said in his paper that in the early stages of lateral curvature patients could generally manage to correct the fault themselves. Dr. Goldsbrough had pointed out that in all probability the origin of the trouble was defective innervation. He (the speaker), looking at the matter from the standpoint of an oculist, had been in the habit of comparing ocular muscle imbalance with lateral curvature. A great deal of the trouble in the back muscles, as in the muscles of the eye, was due to defective innervation. It was a very curious thing that in a case of defect in fusion there was often no particular reason why one eye should squint more than the other, but for some slight reason or other one eye elected to squint and the other eye did not. It had struck him that a similar sort of thing might be the case with regard to the spine. Some had taught that we should endeavour to restore to patients who had defective spinal muscles the sense of erection, the sense of being upright; and it had been suggested that many of the exercises should be performed before a mirror in order to encourage the patients to see and study themselves and to restore and excite in them the sense of being upright. Dr. Deane had proved that that could be done in the patients whom he had brought forward that evening. Dr. Deane had stimulated in them what he (the speaker) would call their sense of fusion, but which really was their sense of erection, and immediately they had put themselves into a right position. He thought many of the exercises carried out were in the direction of stimulating the sense of being erect. He thought that such things as carrying a weight, having a short leg, or anything else, excited the curvature just in the same way as some little abnormal error of refraction would excite a squint in one eye more than the other.

Dr. DEANE, in reply, said he was much obliged to Mr. Dudley Wright for his suggestion in regard to tellurium. He had not been working at the hospital long enough to have had any experience of the effect of it on pain in the back, because when patients came to him they had to go through all his exercises, and it was extraordinary how the pain disappeared under those exercises. With regard to Dr. Madden's question, as to whether the patients he examined were right- or left-handed men, most of his work had been done at Aldershot, and they were all right-handed men. He had not yet had the opportunity of coming across a left-

handed person for treatment. With regard to the jacket, what he had referred to was the system of making the jacket as recommended by Heather Bigg in the last edition of his book. It was a plaster of Paris jacket, but Bigg made it in the following way: He put cloth or bandages round the patient, and then built up the patient straight with pads of cotton wool; all the hollows were filled up, and then the jacket was made round that; the pads were then taken out, and the patient was always trying to work into the correct position and to keep there. He (Dr. Deane) knew practically nothing about this mechanical treatment; he could not make the jackets, and they were not in use in the hospital. There was one particular case of a girl he had under his care, who, he thought, would be benefited by Bigg's jacket. She had a very long dorsal curve, which was very hard indeed to keep straight, but since she had been doing harder muscular work she had got herself straighter and held herself in the position longer. The reason why the curve persisted, as Dr. Madden had said, was apparently due—at least Adams and Shaw said so—to actual bone changes and deformity in the articulating processes, which would not allow of the spine going back to its proper position. No matter how muscular the patient might be, one could not untwist that spine again. He was indebted to Dr. Goldsbrough for his remark that muscles could not act singly. As Dr. Goldsbrough had observed, the muscles were used in groups, and that was what he (Dr. Deane) was aiming at. Dr. Goldsbrough and also Mr. Shaw had mentioned a fact that he was glad to have a note of, namely, bilateral representation, particularly of the trunk muscles, in the cerebrum. It was doubtful if one could use the trunk muscles on the one side to any extent without using the muscles on the other side. One could use the *latissimus dorsi* in pulling one arm down without using the other, but whether the proper trunk muscles could be used on one side to the exclusion of the other was doubtful. With regard to rest, he would point out that his paper consisted merely of cursory sketchy notes; the points he had not alluded to were legion, and mostly contradictory and of no great practical value. But from what he had seen of one or two patients, he thought the rest principle had been dreadfully overdone. Lives had been made miserable and listless by just doing one or two exercises and then lying down all the rest of the day. The case of the girl who had been referred to with a long dorsal curve was a case in point; she had been spending several hours a day on her back. When she came to him he said: "You get up and run

about; jump over chairs and tables, and make yourself a general nuisance." She was a girl wanting to earn her own livelihood, and she returned in two months time a different girl, with a colour in her face and sparkling eyes. The rest business, he was perfectly certain, in spinal curvature could be overdone. He was much obliged to Mr. Shaw for his remarks. He had read some authorities who attributed the commencement of spinal curvature to defective sight. There were so many of such points that he had not the time to go into them in his paper. Dr. Day had approved of the tilted seat. He knew of authorities who said that the tilted seat and the elevation of the leg on the shorter side were absolutely useless. However, he personally used them. With regard to crawling exercises, they did not impress him. To begin with, they were impracticable—girls would object to crawl about the floor; and, secondly, if one crawled about on the convex side of one curve the other curve must be aggravated.

A DIGEST OF URINARY SYMPTOMATOLOGY.¹

BY JAMES WATSON, M.B.EDIN.

Honorary Physician to the Hahnemann Hospital, Liverpool.

MR. PRESIDENT AND GENTLEMEN,—In bringing before you to-night a paper entitled "A Digest of Urinary Symptomatology," my first concern must be to offer an explanation of the ground intended to be covered and of the purport for which the paper has been prepared. It must have been evident to each one of you that it would be impracticable within the limits of one short paper to enumerate, far less to discuss at length, all urinary symptoms. The urinary organs bear such an important part in the economy that scarcely any departure from the normal can take place in any part of the body without some evidence, subjective or objective, of the change being forthcoming in these organs or in their excretions; and, contrariwise, no radical change in structure or impairment of function of the urinary organs takes place

¹ Presented to the Liverpool Branch, December 12, 1907.

without ulterior consequences in almost every organ and tissue of the body. Familiar examples of the latter class of symptoms—what we may call secondary urinary symptoms—may be instanced in the headaches, the pleuritic and other serous effusions, the ocular symptoms and convulsions of Bright's disease, or in the emaciation, the neuritis and pruritus attending diabetes.

I propose, however, to leave out of consideration all such secondary urinary symptoms, and to devote my attention to a survey of purely local evidences of urinary disorder. Even with this limitation I find that the time at my disposal will not suffice to cover anything like this ground. I have therefore been obliged to still further curtail the scope of the paper, and have set myself limits which, though arbitrary, will, I hope, be considered reasonable. I have endeavoured to keep within the bounds of clinical material of which during the past few years I have had experience, and which I hope to utilize by way of illustration. This leads me to remark that the compilation of this paper is the immediate outcome of several interesting and rather obscure cases which I have lately met with, and that in bringing it before your notice I lay no claim to originality, but wish you to regard it as a compendium which it is hoped may prove of some assistance in the diagnosis and prognosis of similar cases. I wish to take this early opportunity of disavowing any intention of formulating any indications for therapeutic treatment of the conditions described. I have, as you are aware, too much regard for the homœopathic law of cure, and its corollary of the totality of symptoms, to attempt to found a therapeusis upon any merely partial view of a situation such as even the fullest investigation of any one set of tissues or of organs affords. With this reservation as regards therapeutic indications, I do not hesitate to say that nothing but good can come from the closest possible acquaintance with the pathological changes present, as well as with the very latest methods of determining them and of estimating their prognostic values. In urinary diseases the necessity for this intimate knowledge of the cause of symptoms holds specially true, because the

urinary tract is one of the principal parts of the body where the realms of medicine and of surgery most nearly approximate, if they do not actually overlap. Much as I believe in *similia similibus curantur*, I also believe that there are limits to the efficacy of even the indicated drug, and that we are at times not only at liberty but obliged to call in the surgeon's aid, and in no part of the body is this procedure more often requisite than in that constituting the urinary tract.

Before embarking on my subject proper it may be politic to mention very briefly one or two elementary, though none the less important, anatomical and physiological facts concerning the urinary organs and their functions. I have already hinted at the important part which the urinary organs play in the economy, and the reason of this prominence is not far to seek, seeing that they are concerned in the removal from the blood and from the body of the effect and poisonous products of tissue metabolism. We find accordingly that provision has been made for a very full blood supply to the kidneys, which are the active agents in this withdrawal. The clinical significance of this extreme vascularity is twofold: (1) it renders the kidneys peculiarly liable to attack *via* the blood stream, so that infective material, microbic or otherwise, finds a free and ready access to the kidney structure, and can permeate throughout the entire organ; (2) it explains the frequency with which inflammatory as well as surgical affections of these organs are accompanied by blood in the urine. The remainder of the urinary tract, though playing the much more passive rôle of conduit and of temporary storehouse for the renal secretion, has nevertheless much significance, and upon its functional soundness as well as freedom from organic lesions depends much of the success with which the renal activity is carried on; *e.g.*, any interference with the free passage of the urine along the conduits must sooner or later, according to the degree of backward pressure set up, have some ill effects upon the renal structure, and septic conditions originating in the lower urinary tract very often spread, by continuity, upwards to the kidney, producing secondary renal symptoms. It is of

the utmost importance to bear in mind those two avenues by which the functional integrity of the renal organs is liable to be assailed, viz.: (1) *via* the blood stream; (2) *via* the lower urinary tract; (a) owing to mechanical obstruction; (b) by spread of septicity.

Urinary symptomatology is composed, like symptomatology generally, partly of subjective, partly of objective, indications of disease. Of subjective urinary symptoms I propose to discuss (1) pain; (2) alterations in the frequency of micturition; (3) pain in relation to the act of micturition.

Pain, as met with in urinary disorders, naturally falls to be considered in three sections, according to the site from which it springs. Those three sites are kidney (with which I shall include ureter), bladder, and urethra.

(1) RENAL PAIN.

Renal pain varies very much both in character and in intensity in different cases. Its most frequent expression is in the form of a dull ache more or less constantly present, referred to the kidney angle, as the interval between the posterior extremity of the iliac crest and the lumbar spine is called. This condition is met with in many persons of a neurotic temperament, and is very commonly associated with oxaluria. In other cases it assumes a more acute congestive character, such as that complained of in cases of acute Bright's disease. In displaced kidney or in floating kidney, the pain is characteristically dragging in character, from the pull which the displaced organ sets up. But the renal pain *par excellence* is something much more acute, and has become notorious under the title of renal colic. In such cases the pain complained of is of a paroxysmal and agonizing character; it begins behind, on the renal angle, passes forwards, round or through to the inguinal and hypogastric regions, and very often radiates to the thigh, the point of the penis, or testicle, producing very often marked retraction of the latter. Montaigne, the celebrated essayist, thus graphically describes the attack: "Thou art seen to sweat with pain, to look pale and red, to tremble, to vomit well-nigh to blood, to suffer strange contortions and convulsions, by starts to let tears drop from

thine eyes, to urine thick black and frightful water, or to have it suppressed by sharp and scraggy stone that cruelly pricks and rends thee." Of the causes provocative of such-like attacks, by far the commonest is calculus, either in kidney or in ureter, exciting by its presence violent expulsive and peristaltic efforts. But any other foreign body, such as fragments of tumour or collections of pus or of blood, will produce the same effect, so that cases of cancer of the kidney or of tubercular disease, either of kidney or ureter, show in quite a large proportion such paroxysms. Again, in cases of floating kidney, where the length of the mesonephron is sufficient to allow of torsion taking place, renal colic often supervenes, owing in part to the vascular congestion, and in part to the retained secretion which the kink in the pedicle brings about. I have instanced these latter examples in order that whenever we come across a case presenting the characteristic features of renal colic, we may not hastily jump to the conclusion that the causal condition must be calculus.

Vesical Pain.

In the case of the bladder we have to deal with a hollow muscular organ, the lining membrane of which seems under normal circumstances to be comparatively insensitive. Yet there is no viscus in the body capable, under other conditions, of giving rise to more intense and troublesome pain. How much of this pain is due to mechanical stimulation of inflamed mucosa, and how much to the inevitable muscular spasm accompanying the trouble, it is impossible to determine. But whatever the source of the pain, the resulting sensations are characteristically burning, scalding and smarting, and they are felt in the hypogastric region, and are associated with a sense of weight as well as of tenderness in that locality. This is the condition met with in all inflammatory diseases of the bladder, the severity of the pain being strictly proportioned to the degree of inflammation present. Another type of vesical pain is found in cases of vesical calculus, where the sensation complained of is of a darting, stabbing character, felt at the neck of bladder, and very often referred, as in renal

colic pain, to the point of the penis or to the groin. Tumours of the bladder do not, at least in their early stages, give rise to much pain unless they happen to be situated in the region of the sensitive trigone, in which case pain, very similar to that due to vesical calculus, is produced. But the later stages of bladder tumour are always painful, owing for the most part to the secondary cystitis which they set up.

Lastly, inflammatory or other diseases of the prostate, which, as you will remember, practically encircles the outlet of the bladder, produce a pain exactly similar to the foregoing type of vesical pain, with this addition, viz. : a characteristic sense of weight and of fulness in the perineum.

Urethral Pain.

I need not detain you long over the consideration of this part of my subject. The characteristic pain met with here is a burning and scalding, generally extending along the whole length of the urethra. A typical illustration of this kind of pain can be seen in any case of gonorrhœa. Occasionally one meets with cases presenting pain of the rending, tearing character, caused by the passage of fragments of stone along the urethra, whilst meatal pain, reflexly produced by conditions already referred to, is of frequent occurrence. In children in particular, meatal pain is often met with. We are often consulted by parents on account of this complaint in children. The child seems afraid to micturate, and when he does, complains of this pain. There are three causes which give rise to such symptoms :—(1) calculus, (2) phimosis, and (3) hyperacidity of the urine. The last is perhaps the most common cause, yet it is one which is often lost sight of, and Deanesly asserts that very many totally unnecessary operations of circumcision take place where a reduction in the starchy element in the food, plus a more liberal supply of fluids, would alone suffice to remedy the ills complained of.

Before taking leave of this general survey of pain, I would like to point out that occasionally one derives some insight into the source and cause of it by noting the effect which change either in position or in movement produces on

it. Deanesly says that he has noticed that in all cases of impacted ureteric calculi the patient assumes a distinct lateral bending of the body towards the affected side; as a result of this pose, the psoas and iliacus muscles, which lie in very close proximity to the ureter, are considerably relaxed, and the pain to that extent diminished. Again, the dragging lumbar pain of floating kidney, provided it is not of too long standing, or complicated by secondary hydronephrosis, will always be relieved in the recumbent position, whilst the aggravation of the pain of calculus produced in some cases by the erect posture, but more typically by violent exertion, is frequently well marked, and of considerable clinical significance.

DISORDERS OF MICTURITION.

Considerable light may often be obtained from the study of the varying degrees of functional activity on the part of the organs of the urinary tract. In the case of the kidneys, such variations are only recognizable through an examination of the secretions produced, or by means of various physical methods, and they may therefore be regarded as wholly objective, and will be referred to later on in the paper. But in the case of the bladder the variations, resulting as they do in alterations in micturition, may be regarded as subjective symptoms, and their consideration forms a very necessary part in the study of urinary symptomatology. I propose to discuss (1) increased frequency of micturition; (2) diminished frequency of micturition; and (3) pain in relation to the act of micturition.

The subject of increased frequency of micturition opens up for consideration issues very far-reaching in extent—much more extensive than can be treated in this paper. It may arise from derangements of the central nervous system, cerebral and spinal, as well as from general constitutional ailments, *e.g.*, diabetes, the essential causes of which lie outside the urinary tract. For present purposes, however, all such extraneous causes will be omitted, and only those instances which have for their immediate cause some abnormality in or around the urinary tract will be considered. In

the case of the kidneys, acute nephritis and chronic interstitial nephritis are the two most important medical diseases attended by frequency of micturition, whereas practically all the surgical affections of the kidneys, particularly calculus, tumour and tuberculosis, cause it. But it is in affections of the bladder and the lower urinary tract that we find the most common causes of frequency of micturition. Affections of the bladder—inflammatory, either acute or chronic, tumour of the bladder or cystic calculi—all produce it, whilst inflammatory affections of the prostate, the gland which practically envelops the meatus urinarius internus, also cause it. Mention of the prostate reminds me that this trouble may also be produced by pressure on the bladder by other neighbouring viscera, *e.g.*, in woman, the pregnant or displaced uterus, both of which act more or less mechanically by materially diminishing the holding capacity of the bladder. Lastly, it occasionally happens that a condition of hyperacidity of the urine is met with capable, apart altogether from any of these pathological changes, of causing it.

Diminished Frequency of Micturition.

I wish to amend the title of this subdivision, so as to include the consideration of increased difficulty, as well as diminished frequency, of micturition. The latter is relatively of very rare occurrence. It does obtain in cases of suppression and of advanced Bright's disease. The former is, however, very frequently met with. Mechanical obstruction in its various forms is, of course, the most prolific cause of it. Phimosis, stricture of urethra, enlargement of prostate, vesical and, to a lesser extent, ureteric calculi may all produce it. Hurry Fenwick records a case in which obstructive suppression took place owing to the blocking of both ureters by calculi, whilst quite a number of cases have been recorded in which the same result has been produced by the presence of a calculus in one ureter. The explanation of this latter condition would seem to be that, in addition to acting as a mechanical stop-tap upon the kidney secretion of its own side, the calculus reflexly inhibits the activity of the kidney of the opposite side. In a recent number of the *Clinical*

Journal Sir William Bennett, in a post-graduate lecture upon "Some Aspects of Difficulty in Micturition," mentions two cases which are peculiar and deserve notice. In one patient, who occasionally suffered from complete inability to pass urine, and in whom physical examination failed to reveal any adequate cause for the attack, Sir William Bennett was completely nonplussed, until one day he noticed a large number of pin-prick-like spots dotted over the man's thighs; this observation, coupled with the evident placidity of the patient during the attack, suggested that the man was a morphomaniac, and the attacks and retentions were due to larger doses of the drug than usual. This surmise on enquiry proved to be a correct one. In the other case the patient found out quite accidentally that, whilst totally unable to pass urine in the ordinary upright posture, he was able to pass it quite comfortably whilst recumbent. The sound, the cystoscope and the X-rays all failed to account for this condition, but an exploratory cystotomy revealed the presence of a small flap of mucous membrane, resembling a flat, sessile polyp, so situated that in the upright position it acted as a valve, occluding the meatus urinarius internus. The removal of this polyp completely cured the patient of his trouble.

Pain in Relation to Micturition.

We have hitherto considered pain only as regards the locality and the distinctive character presented by it, without special reference to the act of micturition. But we find in actual practice that the pains experienced in the different parts of the urinary tract have very close association, as is only natural, with the act of micturition, and are variously affected by it. Clinically the points to be noted are these: (1) Is the pain diminished, increased, or uninfluenced by micturition? (2) Does the pain attain its maximum before, during or after micturition? (3) Does the pain provoke increased micturition?

Each of these points has upon occasion some considerable value in enabling one to determine the nature and the site of the morbid process at work.

Cases of impacted renal calculi are characterized not only by the pain above described, but by an intense desire to pass water, with little or no relief to the symptoms by the passage of the few drops generally voided. On the other hand, the pain of hydronephrosis, or of floating kidney, whilst very similar to that of renal colic, is not, as a rule, attended by such urgent desire to micturate, and is generally relieved by micturition.

The pain of cystitis is worst before micturition and is relieved for a time after it. In cases of vesical calculus the pain is at its worst just at the end of micturition, because at that stage the calculus is forced forwards on to the trigone, the most sensitive part of the bladder mucosa.

Pain on micturition occurs in many cases in which the cause of the trouble is not in the urinary tract proper, *e.g.*, in appendicitis, in diseases of the uterine adnexa and in urethral caruncle.

OBJECTIVE URINARY SYMPTOMS.

Changes in the naked-eye appearance and in the constitution, as demonstrated by chemical analysis and microscopic examinations of the urine, are amongst the principal objective indications of urinary diseases. I can only refer, and in a very cursory fashion, to two of the most frequently occurring deviations: (1) hæmaturia; (2) pyuria.

Hæmaturia.

Blood may be present in such quantities as to be clearly seen with naked eye, or its presence may be determinable only by means of chemical test and by microscopic examination. When present in evident quantities, it is clinically of importance to ascertain in what part of the stream passed the blood appears. In some instances the first part of the stream contains the blood, in which case the lesion is situated in the urethra, probably in its deeper portion; in others, again, the blood comes last, in which cases the blood is probably coming from the bladder, whilst in others, in which no such distinction between first urine and last urine can be seen, the blood may be either from the bladder—in which

case the bleeding must be taking place comparatively slowly, thereby allowing time for the blood and urine to freely intermingle—or from the kidney. This method of localising the source of the blood is, of course, a very rough and ready one and cannot be relied upon. Occasionally fragments of tumours, *e.g.*, of villous growths of the bladder, or blood in the form of ureteric casts, are met with and are useful aids to diagnosis.

It is, however, comparatively rare to find blood present in such quantities as to afford us the use of this rough test; it is much commoner to find it present in traces only, in which case recourse must be had to the chemical test for it or to microscopic examination. The latter method is much the surer, especially nowadays, when, with the aid of the centrifuge, the most infinitesimal quantity can be demonstrated. Not only is it surer in a positive sense, but it is likely, through discovering other adventitious elements, *e.g.*, as renal tube casts or distinctive crystalline deposits, to afford more assistance in localising the seat of the trouble. If it is difficult to locate the site of the bleeding, it is still more difficult to find out the lesion responsible for it. Of the many pathological states which cause it the principal ones are: (1) in bladder—cystitis, calculus, tumour; (2) in kidney—calculus, tuberculosis, tumour and trauma. In traumatic hæmorrhage, apart from the history of injury, the hæmaturia is apt to be very profuse and of a very bright arterial colour, whereas in calculus, either renal or vesical, the evident hæmorrhage is generally intermittent, and the exacerbations of it can generally be accounted for by extra exertion or shaking up which the patient has incurred; in tumours and in tuberculosis the evident hæmorrhage is more apt to be persistent for considerable lengths of time.

Pyuria.

Here, again, the best means of detection is examination with the microscope. In connection with pyuria, the reaction of the urine is a point of considerable clinical significance. Generally speaking, the reaction in cases of pyuria is an alkaline one, because the urine in most cases of pyuria has

undergone ammoniacal changes. But pus does occasionally occur in acid urine, and in that case the condition is probably one of pyelitis. One clinician of great repute goes so far as to say that intermittent pus in acid urine means pyelitis, but there is at least one exception, as Deanesly points out, to this rule, and that is in the case of urethritis, where you may have a very free discharge of pus in an acid urine.

I had intended to refer in much greater detail to the value of microscopy in the diagnosis of lesions of the urinary tract, but I find that time will not allow.

The centrifuge is an apparatus by means of which a deposit can be obtained from urine much more readily than by the old method of sedimentation, and has proved of great service in urinary microscopy. I have been using one for some time past, and I find it not only a valuable time saver, but also productive of much more reliable results.

PHYSICAL EXAMINATION OF THE PATIENT.

We have now reviewed the main subjective symptoms met with in urinary disorders, and also some of the more important changes in the urinary secretion accompanying them. But no satisfactory and convincing diagnosis can possibly be arrived at without a thorough physical examination of each individual patient. I do not intend at this late hour of the evening to attempt to discuss the clinical points which characterize the several diseases of the urinary tract, the knowledge of which is essential to a differential diagnosis of the complaints. I shall assume that the physical data derivable from the usual clinical methods of investigation—inspection, palpation, percussion and mensuration—have all been garnered in, and that we are still at a loss for a positive diagnosis as to site of lesion or its character, or both.

In that case recourse must be had to the cystoscope. This implement has during the past twenty years revolutionized urinary surgery. In shape it closely resembles an ordinary sound, and in its construction it includes an electric lamp, a mirror and a telescope arrangement, by means of which the image is conveyed from end to end.

Passed into the bladder filled with clear fluid, it affords in the hands of a skilled operator information regarding not only the bladder and its contents, but also the kidney.

The following passage, taken from Deanesly's book "Upon Modern Methods in Urinary Diagnosis," presents a very comprehensive summary of the uses to which the cystoscope can be put:—

"The diagnostic value of the cystoscope for all diseases of the bladder is self-evident. Practically every morbid condition discoverable by an operation or *post-mortem* examination of the bladder may be seen with equal or greater clearness through the cystoscope by anyone who will acquire the necessary skill and practice. The value of the cystoscope as an aid to diagnosis of renal disease, though less obvious, is, if anything, still greater, since it affords direct evidence in obscure cases when it is most required. Symptoms not unfrequently leave it in doubt whether a case is one of disease of the bladder or of one or both kidneys. Cystoscopic examination enables us not only to affirm or exclude any visible disease of the bladder, but often points definitely to one kidney as the probable origin of the symptoms, since, when a kidney is diseased, its ureter in many cases participates in the process, and the effects are visible at the ureteric opening. Most forms of pyelitis, for example, tend after a time to spread downwards and affect the ureter, producing visible changes at its orifice, and even invading adjacent mucous membrane of the bladder. . . . It may be assumed that every gross lesion of the kidney which affects the structure of the ureter will display some corresponding change in the bladder orifice of the latter; for example, greater or lesser patency, swelling and engorgement of its mucous membrane, hypertrophy of muscular bands or other changes. Other facts may be noticed of equal or even greater significance, viz., the character of the fluid expelled from the ureter and the amount, force, and frequency of each jet. In all such observations careful comparison of the two sides must be made.

"Apart from the localizing and diagnostic significance of seeing blood or pus expelled from one ureter, we have in cystoscopic observation of the ureteral jets a direct though

imperfect means of judging the secretory activity of the kidneys. The presence of forcible and copious jets of clear urine at regular intervals of fifteen to twenty seconds points to an active and healthy kidney. Irregular and feeble jets, or none at all, point to obstruction of the ureter or an inactive secretion. Secretory activity is influenced by so many causes that allowance must be made for them in estimating the significance of cystoscopic observation ; but when there is a marked deviation from the normal on one side only, its significance is considerable. . . . The more the cystoscope is used, not merely for exploring the bladder, but in order to inspect the mouths of the ureters and watch the urinary flow, the more will its value be appreciated in renal diagnosis and renal surgery."

Of later development than the cystoscope is the separator. By means of this instrument the bladder can be divided into two compartments, and, as the instrument comprises, in addition to the partition, two laterally placed catheters, the contents of the two subsidiary bladder compartments are drawn off into separate receivers. This instrument serves a two-fold purpose : (1) in diagnosis, demonstrating, when properly carried out, which of the two kidneys is at fault ; (2) in prognosis, especially in regard to the employment of surgical measures, the success or failure of some of these surgical measures depending to a large extent upon the functional activity of the remaining organ.

Yet another method has been devised of collecting the urinary secretion from either kidney. I refer to the method of ureter catheterisation. This procedure is, text-books say, a difficult undertaking, but there is now on the market a cystoscope with ureter-catheter attachment, which may, perhaps, render the method more easy of application. However that may be, my main point is to emphasize the fact that such means of investigating the functional activity of the separate organs exist, and that, where the question of removal of one or other kidney arises, no steps should be taken before carrying out the differential investigation. Quite recently a case occurred in Liverpool in which the employment of this procedure would have turned the scale against the operation

of nephrectomy, which one of our ablest surgeons carried out, with a rapidly fatal result, due to uræmic diarrhœa and vomiting.

The latest addition to the physical diagnostic methods in urinary diseases is radiography, which is of inestimable value in many cases. It is particularly serviceable in the detection and localisation of urinary calculi. This particular branch of work is one which demands peculiar skill on the part of the operator. Not only is the method of its employment entirely different from the general trend of surgical procedures, but also the interpretation of the results obtained is very difficult, and only those who have devoted much attention to the subject can hope either to successfully employ it or correctly interpret its results. "In no method," says Deanesly, "are there more pitfalls and fallacies for the inexperienced. It cannot be too strongly emphasized that the whole value of radiography in urinary diagnosis depends on the skill and the experience with which it is applied and interpreted. For this reason the necessary examinations should always be left to expert radiographers." Where, as in Liverpool, such expert assistance can be obtained, the method of radiography has oftentimes proved its value, in spite of the difficulties which it presents.

In conclusion, and also by way of illustrating some of the points touched upon in this rather discursive paper, let me recapitulate the salient points in a few cases.

Case 1.—W. H., aged 48, first consulted me in February, 1906. His history showed that he had suffered from gonorrhœa over twenty years ago, and that, dating from that time, he had had trouble in micturition due to stricture, which he had been in the habit of dilating at least once a week. His general health had never been robust; he had suffered for many years from what he had been told was "spinal irritation," and I found he had a greater array of subjective symptoms than I ever before met with in a single patient. He was a most confirmed neurasthenic.

In 1903 he had had what he termed an attack of bladder spasm, followed by passage of much pus from urethra. This purulent discharge had persisted, though intermittently, from that date. Naturally he suffered some considerable bladder irri-

tation, with consequent frequency of micturition both by day and by night. He also said—though of this statement I at the time took little or no notice—that he had from time to time passed blood in the urine, and he also had complained from time to time of a nagging pain in right testicle. After obtaining and examining a sample of urine, neutral reaction, heavy deposit of pus, albuminous, are the notes made of this examination, I made a detailed physical examination of bladder, rectum, and testicle. I found that the prostate was enlarged and very tender; there was no evidence of tubercular disease of testis or epididymis. The patient's general appearance (his weight was 8 st. 10 lb., height, 5 ft. 6½ in.) was strongly suggestive of tubercular trouble. Later investigation elicited symptoms such as the following: "Sensation of red hot wires from anus right forward to end of penis," strangury, or, as the patient graphically expressed it, "a pressing forward along the pipe as though all the parts would be forced out at front of penis." I also made out the presence of surface tenderness over the crural area supplied by the right genito-crural nerve. Altogether, the patient was under observation at this time for four months, and during that time he was subject to the variations which commonly attend stricture cases, complicated by cystic trouble. He had aggravation from colds, to which he was very liable; he had aggravation if for any reason his bowels did not act regularly, and also after any, even the slightest, indulgence in alcohol. This represents the patient's condition during July, 1906, and it also represents, as the after history of the patient has since demonstrated, a lamentable failure on my part to properly diagnose the condition.

On September 9, 1907, the patient again presented himself, having in the meanwhile continued his bougieing, and, when necessary, self-doctoring; he was a keen student of all quasi-medical lore and also of our *materia medica*. His most urgent complaint at this date was of a pain in the right flank and in the right inguinal region. On palpation I found these areas to be filled up with a firm, resisting, irregularly shaped body, which I at first took to be enormously distended ascending and transverse colons. There was great tenderness to touch and pressure from the right costal arch all the way down to the right Poupart's ligament. Further investigation showed that this lump was in reality the enormously distended or enlarged right kidney, and within forty-eight hours the pain became so acute and the general condition of the patient so rapidly weakened, that immediate operative interference was determined on. The surgeon who was

consulted considered that a tumour so large and so hard was probably cancerous, but that operative interference, though affording but little hope of recovery, was indicated. A cystoscopic examination was first carried out, and this revealed the presence of a pale, waxy-coloured, ulcerated patch in close proximity to the right ureteric orifice.

The right kidney was accordingly cut down upon and the condition was found to be a huge pyonephrosis. About two pints of greenish-yellow pus were evacuated, and along with it twelve calculi varying in size from a pea to a medium-sized bean. It was found impossible to bring up the kidney into the wound, and the surgeon was unable to explore the recesses of the pelvis as thoroughly as he could have wished. Prolonged irrigation of the cavity was carried out, and a drainage tube inserted to the bottom of it.

The patient made a good recovery.

Note (March 17, 1908).—The sinus continues to discharge, but under the action of calcarea sulphurica the pus has, the surgeon reports, become much sweeter. The patient's general health has greatly improved, and he has put on nearly 2 st. in weight.

Case 2.—Mr. M., aged 37. First seen April 4, 1904. Some six weeks prior to this date, whilst in Scotland on business, had experienced what he terms a bad bilious bout, characterized by headache, retching and vomiting, and since that attack he has had fairly frequent attacks of rather severe lumbar pain over the kidney region on both sides. This pain was relieved (1) by firm pressure with hands, (2) by eructation or the passage of flatus downwards, and it was aggravated by eating. When pain was on patient used always to get up and walk to and fro in order to help to get rid of flatus and so get relief. Throughout this six weeks he had suspected that blood was present in his urine, and on examination this was found to be so. The hæmaturia was always worse after exercise, and occasionally he had noticed that clear urine was passed first, and that the bloody urine came last.

Under date April 7, 1904, I find these notes :—

Hæmaturia continued off and on; very often urine passed at bedtime would be clear, whereas the morning urine was always badly blood-stained.

Physical examination elicited tenderness over left kidney angle, no orchitis or epididymitis, examination *per rectum* negative.

Pulse very slow, 54 per minute; high arterial tension.

No headaches, no ocular symptoms, and no nausea.

On April 11, 1904, the report was :—

Much the same as regards the hæmaturia ; pulse increased in rate and tension much lessened ; pain and tenderness to pressure over left kidney not so marked.

My diagnosis at this stage lay between tumour and tuberculosis of the left kidney, and I recommended surgical interference.

This the patient declined to entertain, and transferred his allegiance elsewhere. He returned, however, after two months' interval, and he was now so terribly reduced in weight and so haggard in appearance that I should scarcely have known him.

This time I insisted upon the operation being carried out, and on July 5, 1904, the left kidney was cut down upon and removed. He had previously been cystoscoped and the bloody urine seen emerging from the left ureter. When removed the kidney was found to be enlarged to nearly twice the normal size. It was hardened before being opened, and the specimen thus secured was a very pretty one of multiple abscess cavities, so large and numerous as to have almost entirely displaced the normal kidney tissue.

The patient made a very rapid recovery, and now (December, 1907) remains in evident health and strength.

Case 3.—Mr. F. M. K., aged 40, consulted me on October 7, 1907, bringing with him a sample of his urine, which more resembled in appearance porter than normal urine. I found the sample clouded with blood, but only one or two oxalate of lime crystals ; no tube casts. The patient, a tall spare man, was looking very emaciated and ill. He reports having passed through three months of acute business worry and anxiety ; that the urine had been this deep colour for nearly a week, and that he was suffering from pain in right kidney region and all round right loin.

The hæmaturia continued up till October 20. A twenty-four hours' sample of urine, examined on October 22, showed numerous pus cells, abundant oxalate of lime crystals, no tube casts.

There was all along tenderness over the right kidney region.

The patient was referred to C. Thurston Holland, radiographer to the Liverpool Royal Infirmary, who was able to demonstrate, both with the screen and also by photography, the presence of a very large calculus in the right kidney.

One interesting point about this case is that the one and only attack which the patient ever experienced of real renal colic occurred seventeen years ago. During all these years he had had little or no trouble from a stone which Mr. Holland, whose

experience in this department of radiography is probably unique in this country, has never seen equalled. This immunity to pain was probably accounted for by the very largeness of the stone, which has little or no scope afforded it to move about in. The patient has not, so far, summed up courage sufficient to submit to the operation for its removal.

Gentlemen, with these very imperfect notes of illustrative cases I take leave of my subject, which, however inadequately dealt with, is one which each of us must needs consider well in all its bearings, and which lends itself to a very full and free discussion.

CURATIVE FORCE AND ITS SCIENTIFIC INDUCTION.¹

BY ROBERT M. LE HUNTE COOPER, M.D., B.S.DURH.

I HAVE specially chosen the word "scientific" in the title of this paper because the representatives of the old school, who apparently never trouble to investigate the subject, are constantly engaged in dinning into the ears of the laity that homœopathy is unscientific.

The allopathic medical man in the street (if I may so call him) has a vague idea that homœopathy consists firstly in giving infinitesimal doses, which cannot possibly act either remedially or deleteriously, and secondly, in treating symptoms merely, without any regard to the pathological nature of the disease treated; in other words, that it is a shallow, unscientific, hare-brained attempt to deal with the obvious surface conditions without giving a thought to the true fountain source of the malady.

If he were to trouble to impartially enquire into our doctrines and methods he would see that these strictures far more aptly apply to his own practices, and that it is our very success in digging down deeper and striking at the cause of the surface manifestations which raises our science so immeasurably above his.

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There is now no need to argue with him as to the action of minute doses, it being sufficient to advise him to make himself acquainted with the latest researches of his own school on the action of tuberculin; and as for the treatment of symptoms, a school of medicine which uses purgatives for constipation, astringents for diarrhœa, diaphoretics for every form of fever, and alkalies for acidity, &c., is surely the last which can accuse another of treating symptoms only.

The allopaths themselves have been accustomed in the past to accept only such observations as the physiological and chemical action of remedies, and to reject as unscientific and unreliable clinical observations, even though made with the greatest possible care and accuracy. Polypharmacy has, of course, rendered their own clinical observations valueless, and its unsatisfactory results in the treatment of disease have made such an indelible impression on their minds that they invariably dismiss the suggestion that any drug can cure any disease, with pitying scorn.

By voluntarily closing the door to all knowledge gained by clinical observation on the action of drugs they have retarded the advance of the treatment of disease to an incalculable extent, and it is only within the last few years that the researches of Professor Wright have opened their eyes to the possibility of combating constitutional dyscrasia by allowing remedial action an untrammelled field of operation when once generated. To prophesy how many æons will elapse before the allopathic practitioner grasps the true significance of these researches and their ultimate far-reaching application would be futile, but the unbiased seekers after truth cannot fail to have benefited by the salutary lesson they have taught in demonstrating what a single remedy can do when allowed a free sphere of action. Indeed, it is safe to say that these investigations must necessarily in time lead to a recognition of homœopathic principles, and some colour is lent to this by the fact, which I have heard on excellent authority, that Professor Wright himself uses Hahnemann's indications for the exhibition of *calcara carbonica*.

No one who gives the matter careful thought can deny that the only true scientific way of combating human disease

is to adopt measures which induce the system to generate forces which are antagonistic to the disease and capable of neutralizing its processes. This surely is far more in conformity with natural laws than attempting to poison the disease by introducing toxic materials in large quantities into the body. I use the term "antagonistic forces" as covering wider fields than "arborivital action" and "opsonic index," the one suggesting the action of vegetable remedies alone and the other dealing purely with disease associated with the appearance of micro-organisms in the body.

We know that the system unaided is frequently able to produce such antagonistic forces, but it frequently fails to do so without assistance, and it is to the true homœopathic action that we must look for help in such cases. It is obvious that these forces, when self-generated, tend to be continuous in action, otherwise disease would have wiped out the human race long ago, and this being granted, surely it is not difficult to conceive that these same forces, when artificially generated, would also tend to continue in action, at any rate for a time. In view of this it is inconceivable to me why such vehement protests should be forthcoming when mention is made of the treatment of disease by the exhibition of remedies in unit doses at several days' interval. Especially does it seem surprising that many homœopaths themselves should assume this attitude when they must know from their own experience the enormous remedial powers which the rightly chosen remedy is capable of setting up.

That the antagonistic forces which are generated by remedies are of varying duration according to the nature of the disease treated is beyond doubt, and if proof is needed it is forthcoming in the obvious necessity for, and benefit accruing from, frequently repeating doses when treating acute diseases, such, for example, as fevers. Seeing how much longer symptoms take in manifesting themselves in chronic disease, it need not be a matter for undue surprise if the reactive forces of the system, when generated, require a longer time to counteract these chronic disease processes. If, then, it is once allowed that it is possible to generate

these antagonistic forces by giving the indicated remedy, does it not seem unlikely that very frequent repetition of the remedy would be beneficial, and might not such a practice even be harmful, by tending to interfere with the force originally generated?

The above remarks give an idea of my own views, explaining the results obtained by my late father at the time I first commenced to experiment with remedies on these lines. The conception was to me a very fascinating one, and suggested far-reaching possibilities if I could only prove them to be true to my own satisfaction. I never lay claim to any particular redeeming features in my allopathic days, but I can say that I did not possess that peculiar phase of the allopathic mind which condemns new ideas without troubling to investigate them. Hence I decided to test them for myself and to eliminate as far as possible misconceptions due to extraneous circumstances, such as the influence of the mind, &c., so that the results obtained might be wholly ascribed to the remedy given. I had anticipated a great deal of difficulty from the bogie of patients resisting procedures so opposed to their former conceptions of the correct and fashionable method of taking drugs, but I found that the more intelligent of them soon saw the force of reasoning underlying such unusual procedures, and, of course, no difficulty existed in those patients previously trained by my late father.

It is quite impossible for me to recount all the many observations which proved the matter to my satisfaction; many of the most striking have been published in the *Homœopathic World* by the kind consideration of the editor, Dr. Clarke; but there were innumerable others which, though less clear-cut, still helped to convince me that I was not chasing a chimerical fancy, but was proving the truth of my late father's observations.

I saw at once that my investigations would gain proportionately in value the fewer the remedies used in any one case, and the ideal I aimed at was to cure each case with one remedy alone. Such results were necessarily rare, for intercurrent symptoms have an awkward way of cropping

up and demanding a change of remedy ; but this was not so in every case, and in one notably, which did more to convince me than any other in my earlier days. It also had the advantage of being free from the innumerable objections with which we are accustomed to be assailed, *ad nauseam*, by our professional brethren whenever we claim the medicinal cure of any human malady. I refer, of course, to chance, mind suggestion, incorrect diagnosis, altered environment, altered food, &c., &c., in fact anything in the whole cosmos rather than pure drug action.

On June 18, 1904, a wizened little female specimen of humanity, aged 8, was brought to me by her mother with the following history : Except for measles, whooping-cough, and influenza in the past she had been well till six months previously, when it was noticed that she was wasting and that the abdomen was swelling, these symptoms being associated with diarrhœa.

She had been under a private practitioner of the ancient persuasion for five months, but as she steadily became worse she was taken to the Westminster Hospital, where the condition was said to have been diagnosed as "consumption of the bowels." The hospital authorities considered that the disease had progressed so far that it would be useless admitting her, *as she could not possibly recover*. On returning to the doctor aforementioned he declared further treatment to be useless, as nothing could possibly save the child's life.

It was said that she was formerly a fat child, but when brought to me she was a mere skeleton, so far as her head, chest, and limbs were concerned. She was dull and listless in manner, and her abdomen was enormously distended and dull in the flanks, the tension being so great as to preclude all possibility of detecting any enlarged mesenteric glands. No subjective lung symptoms were present, and the chest, which was very shrunk, expanded equally on both sides, but bronchial breathing was present over the left base. Pain was only present at stool, which was very offensive and watery, the bowels acting on an average five to six times in the twenty-four hours ; they had acted three times the previous night. Presumably a slight feverish attack was responsible for the fact that two months previously she had complained of seeing "nasty things running on the floor," but this symptom had not since been in evidence. A history of a tuberculous great-aunt who died from phthisis, and the fact that she

had never been the same child since an attack of whooping-cough a year before the present trouble, were the other important points in the case. She had never been vaccinated.

Shortly before this case came to me I had obtained markedly beneficial effects in a case of generalised tuberculosis in a child from *scrophularia nodosa*, and this, together with my late father's observations on the remedy, decided me in giving this remedy a full chance without in any way altering the diet or surroundings of the child. I therefore gave a unit arborivital dose of this drug, and no other directions except to insist that the milk should be absolutely pure and free from preservatives, that the child should have all the fresh air possible, and that the room in which it slept should be well ventilated. I also prescribed an ointment of the same remedy to be rubbed into the abdomen night and morning.

July 4 (i.e., seventeen days later).—Much better, bowels have steadily improved, now usually only act twice in twenty-four hours, though occasionally three to four times. Fæces very slightly formed at times and less offensive, and she only occasionally cries during an action. Is more lively and sleeps a great deal better, never waking to defæcate as formerly. Previously very loth to take food, now takes it readily. Abdomen somewhat smaller.

It being obvious that the right remedy had been found, I stopped the ointment, and repeated the unit dose.

July 18, (i.e., fourteen days later).—Better, stronger in walking. Evacuations average twice a day, and are darker and frequently formed. Takes her food well, is looking better, and putting on flesh. Abdomen less tense. Repeated unit dose.

A fortnight later.—Up to a day ago had been improving, the bowels acting often only once a day, and she in herself being stronger. Then a severe attack of diarrhoea and repeated vomiting set in, with pain in the left hypochondrium, furred tongue, drawn face, and great weakness. The abdomen, however, had gone down considerably.

Regarding this as merely an attack of indigestion, I cut down the diet entirely to milk temporarily, it having previously consisted of fish, eggs, and a little meat, and gave another unit dose of *scrophularia*, with directions to report at once if not improving.

August 18, (i.e., fifteen days later).—She was brought with the report that the day after the dose she was much brighter, the tongue cleared, the bowels only acted twice, and vomiting ceased, since when the actions have been twice a day and loose. Unit dose repeated.

From this time onward she continued to improve, the limbs

steadily filled out, colour returned to the cheeks, and the abdomen reduced in size. She had no other remedy but the one mentioned, with the exception of a unit dose of Arsen. 200 in November of the same year, which was given on account of a cold. I continued the doses of Scrophularia at fortnightly intervals, till the end of that year (1904) and then gave them every month for three months, and then every two months, till towards the end of last year, since when the intervals have been still further prolonged, the child being now in perfect health.

I may mention that I told the mother that if her previous doctor expressed a wish to know the treatment and remedies I had employed, nothing would please me more than to give him all the details. It is, however, a significant fact that although previously very solicitous for the child's welfare, from the time he first heard that homœopathic aid had been invoked he passed the whole family by without recognition. It is instances such as these which force me to regard with despair the conception of a future brotherly unity between the two branches of the profession.

Before leaving this all-powerful remedy, I may mention that so far as my investigations go up to the present, it seems to be indicated whenever enlarged glands are present, even acting beneficially on cancerous glands when locally applied, but of course specially on those of scrofulous and tubercular origin. It also seems to be specifically related to breast tissue. Time prevents my giving details of the following cases, suffice it to say that I have with this remedy enabled a formerly derelict fisherman, suffering from Hodgkin's disease, to return to work, reducing materially many of the swellings with which he was covered, and earning his professed eternal gratitude, and have also by its aid recently reduced an apparently tubercular testis to less than half its size and removed entirely all the pain, which had obstinately refused to yield to long-continued and persistent allopathic measures, eventually terminating in the usual verdict: "Nothing for it but operation."

Finally, I commend it with confidence to the investigations of that most indefatigable pursuer of the elusive opsonic index, Dr. Wheeler, for no vegetable remedy would,

in my opinion, be more likely to furnish results in this direction than *scrophularia nodosa*.

I should have liked to describe to you several cases cured by the more generally used homœopathic remedies given in unit dose, in support of the undoubted fact that the more closely the symptoms of the drug pathogenesis approach those of the case to be treated the better the remedies act when given in this way, but I have been compelled to deal with the lesser known drugs for the reason that, in treating malignant disease, I have chiefly used these, and I thought it would add interest to the subject of Dr. Burford's paper, which will follow mine later in the session, if I gave some evidence of the action of unit doses in cancer.

In proving medicinal action on malignant disease I have been necessarily confronted with the great difficulty of obtaining cases which should be at once beyond all shadow of doubt true cancer, and yet should not have advanced so far as to preclude all possibility of recovery, owing to the weakened recuperative powers of the patient. The surgeon, on the other hand, is not similarly handicapped, because his treatment necessarily consists in mechanically removing any abnormal tissue which may be present, so that when subsequently relating the future history of such cases he can produce his bottled specimens or microscopic slides to prove their genuineness. Further difficulties have arisen, so far as my researches are concerned, in that cases which have previously been operated on are, as a rule, far less amenable to medicinal action, the most difficult being those in which a disseminated form of the malady has broken out at other than the site of the original tumour, as is so prone to occur after removal by the knife.

That this difficulty is not so manifest when recurrence occurs at the site of the former tumour is exemplified in a case of epithelioma of the face in an old gentleman, aged 75, which I reported to the Cooper Club, and which was subsequently published in the *Homœopathic World*. I will not again burden you with the details of this case, but I mention it because it was one of those rare cases I have mentioned, for it was operated on by Sir F. Treves's

brother in the first instance and was seen after the recurrence of the growth by such well-known men as Mr. Cheatele and Mr. Sutcliffe, who all attested to its malignancy and to the fact that infiltration had so far advanced in the surrounding tissues that no hope could be entertained from operation, even if the whole of that side of the face were removed. Yet all vestige of the tumour disappeared after treatment with lobelia erinus, and I heard a fortnight ago (*i.e.*, four years later) that the old gentleman was still enjoying excellent health and that there had been no sign of recurrence of the trouble since.

The case I am now about to describe to you I am giving in some detail because, if I further curtailed it, a great deal of its value would be lost, and I must crave your indulgence if I weary you.

On June 3, 1905, I was called to a case in consultation with an old school practitioner, who together with several well-known London consultants of the same persuasion, had declared that nothing more could be done for the patient.

The lady, formerly stout, aged 52, of fair complexion and active habits, had to all intents and purposes appeared well till four months previously, when she first noticed swelling of the abdomen. She was seen by Sir John Williams, Dr. Spencer and Dr. Champneys, among others, who discovered the presence of a tumour, increasing in size with such alarming rapidity that she was handed over for operation to Mr. Bland Sutton on May 7 (*i.e.*, four weeks before I saw her), ten pints of fluid were removed from the abdomen, and a large colloid carcinoma was found growing from the great omentum. Its extent was too great to allow of any attempt being made to remove it, so the wound was closed and the patient sent home to die.

Since the operation the growth had rapidly increased in size, pain had developed, though this had not previously been a marked feature, and the bowels had become extremely constipated, in fact, the disease was making such rapid strides that it was considered she could only survive two or three weeks at the most. Vomiting had occurred once prior to the operation, but not since.

On examination I found the patient, owing to her previous stoutness, by no means emaciated, though she had lost flesh considerably; the abdomen was very large and tense, and I could

feel a large hard growth filling the greater part of abdomen. The tension would not allow of this being clearly mapped out below, though above it could be felt to reach up to within 3 or 4 in. of the xiphoid cartilage (fig. 1). No evidences of ascites were present and tenderness was not very great, being present only over the lower abdomen. There was a good deal of pain of a heavy character across this tender area, and the patient was only able to lie on the back, the slightest attempt to turn on either side causing severe dragging pain. Urine was voided freely, though burning somewhat when passed; its specific gravity was normal, and there was no trace of albumin or sugar present. *The constipation was extreme, and required large enemata, which acted with difficulty, and resulted in great prostration.* The appetite was bad, and the sleep very restless, and she was confined wholly to bed except for a few minutes daily, when she was moved on to a couch while the bed was made. Both feet were œdematous.

When I had completed my examination I was asked whether I thought I could do anything. I replied that I expected to relieve the condition and possibly control the growth, but that I should need to treat the case for a little time before being certain on the latter point. It was, however, clear that the present extreme rapidity of the tumour's growth would enable me to soon determine this definitely. At the same time I refused point blank to take up the case unless I had an absolutely free hand in the treatment.

I had gone prepared for professional allopathic antagonism of the supercilious and ill-natured character which I had invariably encountered in the past, and my surprise was great when Dr. X. unreservedly placed the conduct of the case in my hands, merely requesting to be an onlooker, to which I cordially assented. Naturally he was entirely incredulous as to any benefit being possible, for had not the flower of the profession pronounced her case to be cancer of a most malignant type and beyond all hope of relief?

The case was going downhill so rapidly that I had no time to feel my way towards the remedy best suited to the condition, as every moment was of vital importance. I had but recently cured the last case mentioned (June 3, 1905), and had become impressed with the remarkable power of *lobelia erinus* in controlling carcinoma of extremely rapid growth, and I therefore naturally chose this particular drug for my first dose. I directed that the dose be given at least two hours after food, at 3.15 p.m. that day, and I warned the friends not to be alarmed if a reaction took

place shortly after, but, *nota bene*, I suggested nothing of this to the patient, so that subsequent events can in no way be put down to mental influence of any kind.

Next morning an urgent deputation waited on me at my rooms to say that violent corkscrew-like abdominal pains had come on in the night, differing entirely from any pain previously felt, that the bowels had acted three times, and that vomiting had occurred once after breakfast. To their astonishment, I expressed great pleasure at this news, and directed warmth to be applied locally if the pain continued, but, needless to say, gave no further medicine.

Five days later (June 13).—I called to see the patient and learnt that the pain had commenced at 9.30 p.m., *i.e.*, about six hours after the dose, and had continued till 3.30 p.m. the following day. She had vomited several times that day, but not since, and *the bowels had acted regularly every morning*, the motions being much more natural in colour, formed and moderately dark. Urine had been passed in greater quantity and more freely, with no longer any burning. The appetite had greatly improved and less flatus was present, though a good deal was passed on defæcation. In herself she felt and looked better, and *for two days after the powder she could turn on one side*, though unable to do so now. Sleep rather restless. Abdomen somewhat less tense.

It was quite apparent that the vital reactive forces had been stimulated, this being especially indicated by the previously obstinate bowels having commenced natural daily action (I have in previous papers called attention to the great significance of this symptom in such cases), and it was equally apparent that the effect was still continuing. I therefore gave no more medicine and called again a week later, on

June 20.—I then learned that the actions had continued once a day up to two days before, but since then enemata had been required, which were, as before, followed by great faintness. Appetite very much better, legs stronger, flatulence ever so much better, and sleep much improved. The abdomen was now decidedly less distended and the lower outline of the growth was more apparent. *Lob. erin. ϕ A* (seventeen days after previous dose).

July 4 (fourteen days later).—Within two and a half hours of the last dose a natural motion was passed, but enemata have been required since. *Pain has entirely ceased*, till the last day or two, since when a good deal has been present in the lower abdomen and she can only lie on the back. Nevertheless, she

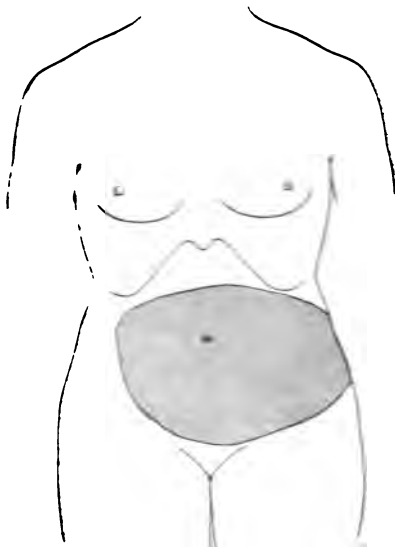


FIG. 1

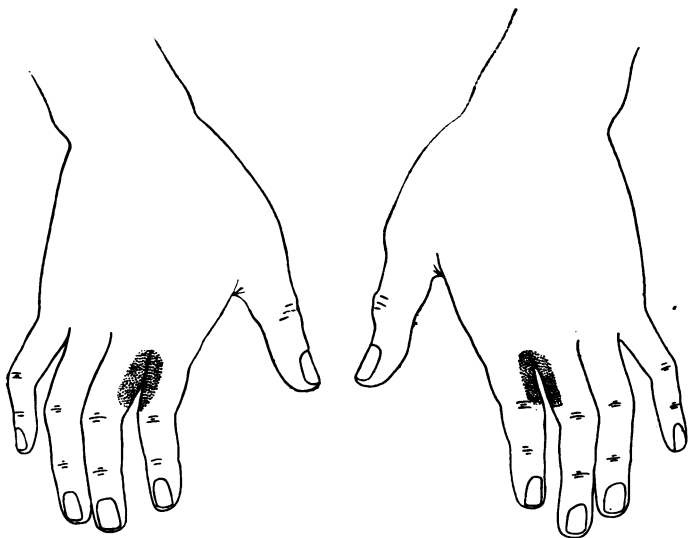


FIG. 2.

has managed with assistance to walk twice into another room, and the feet are less swollen. Abdomen, as a whole, is less tense and softer, and the growth seems to be a little smaller in its lower part. *Lob. erin. ϕ A* (fourteen days after previous dose).

July 10 (six days later).—For three days after the dose pains were felt all over the abdomen, though not very severe, and headache affecting the whole head occurred the same night. The bowels have acted daily since, sometimes twice a day, the motions being formed and natural in colour. Appetite and sleep, however, are not so good. Though never troubled with the skin in her life before, she has lately noticed some patches of *dry eczema between the fore and middle fingers of each hand, and the skin of the face has also felt very dry* (fig. 2).

On examination Dr. X. and myself were now certain that the growth was smaller in its vertical diameter and on the right side. The abdomen as a whole was markedly smaller. (Compare figs. 1 and 3.

July 17 (seven days later).—Walked into the other room without support to-day for the first time. Bowels acting naturally. Sleep much better. (Thirteen days after previous dose) *lob. erin. ϕ A*.

July 25 (eight days later).—Slight abdominal pain three days after dose. Bowels daily, sometimes twice. *Since under treatment has noticed that she cannot take brandy, the mere smell making her sick.*

August 1 (six days later).—Bowels daily; sleep good. *Has walked into the other room daily without any assistance.* Tumour markedly diminished. Is looking altogether a different individual, the colour in the face having assumed a healthy appearance. Dr. X. now apparently no longer doubted final recovery, and made but little comment after the first shock to preconceived and firmly rooted notions of drug action resulting from the effect of the first dose.

August 7 (six days later).—Not so well. Vomited three times (chiefly bile). Is feeling faint and suffers from throbbing cardiac pains. Good deal of pain in left side of neck down to the deltoid, and some aching in the legs.

The first impression I got from this state of affairs was that the effect of the dose, given as far back as twenty-one days before, had ceased, but on examining the growth I found that it was still steadily diminishing in size. There being absolutely no doubt on this point, one naturally realised that the system, in absorbing such a virulent growth, must necessarily undergo a great strain, and that this in itself was conceivably quite sufficient to account

for the symptoms above narrated. They were quite those one might expect from a form of toxæmia, *e.g.*, faintness, throbbing pains in the heart, vomiting and aching of the limbs, &c. This being so, it was evident that the exhibition of another dose might be attended with disastrous results. I therefore merely gave a few drops of gentiana lutea 3x in water before meals and directed that the limbs should be massaged.

August 11 (three days later).—Better. Vomiting ceased the following day; appetite improved; bowels regular, frequently acting twice a day, and tumour if anything less.

Unfortunately at this juncture I had to leave town. I directed that the same medicine (gent. lut.) should be continued, and arranged for reports to be forwarded to me.

August 17 (written report six days later).—Not so well. Great deal of bowel irritation. No pain and abdomen smaller, but is disinclined for food. On August 13 right lower eyelid became inflamed, boracic compresses applied and pus discharged on the 16th. Bowels act twice a day and are loose; bright yellow. Nausea, no vomiting (gent. lut. stopped). Carbo. veg. 6x at night.

August 24 (report three days later).—Passing much less urine, abdomen more distended, great deal of flatus. Stools one or two daily, loose and acid. Profuse perspiration, and exhausted on waking on 22nd, with feeling of great weight in lower pelvis. Abdomen larger, and some swelling round the vagina and anus, with scalding on micturition. No explanation of these symptoms was forthcoming from the thermometer, which was said to indicate no rise in temperature, and it became a question in my mind as to whether I had acted rightly in withholding another dose of lobelia. The abdominal distension might be purely flatulent, but, on the other hand, it was quite on the cards that the local manifestation of the disease was again gaining ascendancy. The condition obviously called for active measures, and I therefore sent another dose of lob. erin. ϕ A (thirty-eight days after previous dose).

August 29 (five days later).—I received an urgent telegram recalling me to London. I found the patient very weak; could only move the arms and legs very weakly. Pulse very weak, 60. Unable to keep anything down, except white of egg and sherry (brandy aggravates vomiting). Nutrient enemata every four hours. I learnt that the dose had been followed by some temporary pain in the upper abdomen, there now being slight pain in the lower abdomen, yet to my surprise I found *the tumour itself still smaller.*

It was quite evident that the condition was as grave as it could be short of actual dissolution. Indeed, it was marvellous that the patient still lived. What, then, was to be done? Previously recorded cases of malignant disease which merely described the surgical removal of the obvious local manifestation and ignored the systemic underlying dyscrasia, could give me no help. I therefore carefully considered the facts as they appeared, and could only come to one conclusion, viz., that the patient was dying from toxæmic infection due to the rapid absorption of the growth, her bodily functions being unable to deal with the mass of material to be disposed of. This being so, how was it to be combated? Clearly an antidote must be found, and what better or more likely antidote than a highly potentised nosode, as closely related to the present form of the disease as possible?

Hence my next unit dose, *carcinosis* 100.

That same evening, temperature still 95° F., but patient decidedly stronger.

September 2 (next morning).—Temperature rising again; now 97° F.; pulse 100, regular, stronger.

That evening, temperature normal; is stronger, still keeps her food down; Pulse 100, regular.

*September 3 (next morning).—Temperature dropped to 95° F. again, but pulse is stronger, 96; tumour smaller; *carcinosis*, 100 unit.*

That evening, temperature normal; distinct improvement in strength. Has developed excessive hunger.

Without further medicine the patient continued to improve daily till

*September 6 (three days later), when she became rather low after a restless night, and complained of a dragging feeling in the tumour under the ribs, apparently due to want of support to the growth, owing to its diminishing size. Hunger is still present; *carcinosis*, 100 unit.*

Evening visit.—Remarkable improvement.

Feels much better, and says she has felt so much calmer since the dose. Is no longer restless. *The dose was taken at 11 a.m., and at 12.40 p.m. she broke out into profuse perspiration and a natural formed motion was passed (the bowels not having acted for four days previously). In her face she looks much better. Several small isolated spots have appeared in the axilla, at which she is greatly upset, as she has never before had any skin trouble*

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left side of the chest above the breast. The axillary spots are beginning to look inflammatory. In herself the patient is looking splendid and is eating a certain amount of solid food; she enjoyed some meat yesterday. Bell. 3, four hours.

September 18 (four days later).—The belladonna apparently relieved the general pain in the forehead, but it remained over the left eyebrow, and is to-day very severe. Spots on nose and on chest better. *Viola odorata*, ϕA . There was no return of neuralgia after this dose, and on

September 24 (six days later) Dr. X. found the tumour smaller than when he last saw it three days ago (fig. 4).

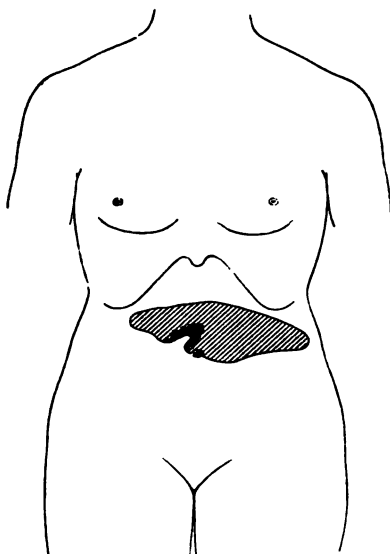


FIG. 4.

September 26 (two days later, and thirty-three days since the previous dose of the same).—I gave lob. erin. ϕA .

September 29 (three days later).—Is looking and feeling splendid, but complains that *since the last powder the fingers have become dry and scaly again*, also the face has felt dried up and the mucous membrane of the nose and throat has become very dry. A new inflammatory spot has appeared over the left breast, the former one in this situation having disappeared some time ago. Ung. Scrophulosa to axilla.

October 1 (two days later).—I opened several boils in the left

axilla and evacuated a quantity of white pus, and next day another one required opening in the right axilla. She herself looks very well, but feels low. *Note.—There was no evidence of suppuration till the ung. scroph. was applied.*

A definite notch can now be felt in the tumour. For the next ten days the patient went on very well; she got up every day for half an hour or so, and the notch became more evident, showing still further diminution in the growth. A dry irritable rash appeared above the elbows with some vulval and anal irritation, but was not very marked, and on

October 10 (a fortnight after the previous dose) I again gave (fourteen days since the previous dose) lob. erin. ϕ A.

October 11 (the next day).—I was informed that she had pains up the back of the neck and shoulders, with stiffness in the neck before the dose was taken. Now, is not feeling so well, arms and legs weak, profuse perspiration in the night, and restless sleep. Bowels acted once, loose and offensive. One of the nurses in attendance said she feared collapse, because *the previous collapse began with similar symptoms.*

October 12 (next day).—Slight nausea and feels weak. Pulse weak and slightly irregular, profuse perspiration in the night, with snatches of sleep of from half to one hour. No pain. One partly formed motion. Temperature 96.6° F. Brandy given *per rectum*. On receiving a message later to say vomiting had commenced after food I prescribed ipecac. 200, three hours.

Evening Visit.—Pulse somewhat stronger, though a beat is occasionally dropped. No more vomiting. Feels ill in herself, but by no means collapsed. Temperature has risen to 97.2° F.

I considered the question of giving another dose of carnosin, but decided that this might be deferred, in view of the rising temperature and the absence of collapse. Ipecac. and brandy *per rectum* continued and, of course, absolute rest enjoined.

One hour and twenty minutes later the patient sat up in bed, supported by the nurses, and expired (four and a half months from the time I first took her in hand).

This sudden and unlooked-for dénouement after one had succeeded in pulling the patient back twice from the grave, was the more lamentable in that it followed on the reduction of the tumour to less than one-third its original size, and on the very remarkable and, I think I am justified in saying, the wholly unprecedented increase in the body-weight and strength, which had continued up to within a few

days of decease. I consider it impossible to too strongly emphasize the lesson which this case teaches, viz., *that once the indicated remedy has been found to such cases and the natural reactionary forces have been stimulated, very grave danger is liable to ensue if the remedy is repeated too soon, this danger being proportionately greater the more malignant and rapidly growing the original tumour.*

The final symptoms in this particular case can, in my opinion, only be accounted for by the conclusion that fourteen days was too short an interval to have elapsed before the last dose of lob. erin. was given, for although other conditions seemed to justify this, it must be borne in mind that the reduction of the tumour was still continuing as rapidly, if not more rapidly, at the time it was given, and the added strain to the eliminative forces was just sufficient to upset the fine balance between these forces and the amount of material set free in the system.

Even if we were destitute of all previous evidence, it must be acknowledged that the results of treatment in this case alone are sufficient to explode the old teaching that cancer is beyond the control of all medicinal measures and it can in no way be even modified by internal remedies.

I consider the fact which they prove also—that the nosodes have a power in controlling excessive reaction—as likely to be of inestimable value in the future; but it may not be out of place here to say that, so far as my investigations have extended up to the present, *I have not found these preparations possess any power in originating eliminative action, as do the arborivital doses themselves.*

The development of multiple boils coincident with decrease in the growth testified to the efforts the body was making to throw off the poison. The appearance of the notch felt in the growth had a double significance, in that the original tumour was said to have commenced in two separate portions, which subsequently coalesced, the notch apparently indicating that the lines on which absorption took place were a more or less exact reversal of those of the former increase.

All the evidence in this case points to recovery being

extremely probable if the patient had been treated on these lines earlier, when there was less growth present and the disease had less hold on the system, but then the abdomen would not have been opened and the usual verdict would have been given: "The case recovered, therefore it could not have been cancer."

This case has taken up time which might have been devoted to others of happier issue, and one, notably, of a drayman with a former large malignant growth, who has since gone back to work, with no trace left of the former growth, but the evidence in the case I have given you was of such great value, even though it terminated fatally, that I felt justified in relegating the description of these other cases to a distant future.

I fear I have already overstepped my allotted time, but before concluding what, I fear, has been a long and tedious discourse, I wish to remove any possible misconception by stating that my object in writing this paper was not to extol any particular remedy as a specific for cancer, but to propound a principle of drug administration in chronic disease, having for its object the scientific induction of curative force.

Dr. SPIERS ALEXANDER (in the chair) thought Dr. Cooper was to be congratulated on the success which had attended the treatment of the cases he had described. The success which had attended the author's treatment was so striking that it impressed him (Dr. Alexander) with the fact that in all probability the principle underlying the use of the remedy, although it had not yet been demonstrated, must be homœopathic. The effect of the unit dose was very remarkable. It reminded him of the limitations that homœopathic practitioners had to employ in the use of very high dilutions. It was well known that, the higher the dilution, the less frequent must the dose be. He had the honour of contributing an article some years ago to the *Monthly Homœopathic Review* entitled, "The Single Remedy in the Treatment of Disease," in which he gave a number of striking cases which had been absolutely cured by a single dose of the thousandth dilution of the indicated drug. If drugs could only be so proved that their symptomatology might be more accurately known, practitioners

would be able to use them more definitely and demonstrate more clearly their homœopathicity to the cases treated.

Dr. CLARKE remarked that Dr. Cooper, sen., did not take his indications for his remedies from their use in disease, because he cured cases with remedies which had never been used clinically at all before. The remedies he used were very often proved remedies, as in the case of lobelia, but sometimes he liked to possess a number of varieties of the same remedy, for instance, the erinus as well as the inflata; and Dr. Cooper always had some particular reason—whether it were signatorial or other he did not know—for its use in the disease in which he gave it. Those indications were practically of a homœopathic nature. But once having obtained his indications for a remedy, the fact that he gave it in unit doses, that he did not repeat it and did not give intercurrent remedies, enabled him to watch the evolution of the remedy's action, and in the course of that evolution indications for its further use would often be brought out. In the extremely valuable case which the author of the paper had described at such great length he mentioned that, after the first dose of lob. erin., the patient complained of violent corkscrew-like pains in the intestines. Personally he advised the members to put that down in their notebooks, and whenever they came across a patient complaining of a distinct pain of that kind, if there was nothing else more directly indicated, lob. erin. in a single dose should be used. He had often followed the practice of Dr. Cooper, sen., and had observed a large number of cases where very remarkable results had followed from unit doses. A case which came under his own care in April of last year might be mentioned. It was that of a young lady, aged 22, who had been operated on a month previously for a lump in the region of the appendix. The operation disclosed a malignant tumour, which was so situated and so involved that the incision was stitched up, the surgeons being of the opinion that nothing could be done for the patient. After that she was put under X-ray treatment, but was getting steadily worse when he first saw her. There was a good deal of discomfort in the region of the tumour, and pains of a pushing-out character at times, while the bowels were very obstinately constipated. From previous cases he had seen he came to the conclusion that ornithogalum would help. He accordingly gave the patient a unit dose of the ϕ tincture and nothing more for three weeks, at the end of which time the patient reported. She told him that soon after the dose the bowels acted perfectly well, she felt much freer from pain, and on making an examination he found the tumour was

distinctly less. He repeated the dose, and after another interval of three weeks found that the improvement continued, although the usual constipation had returned. He kept her under ornithogalum for several months, after which he had occasion to give other remedies, although he generally came back to that drug. About the end of the year she asked him if he thought she would be well by June. He asked her if she had any particular reason, and she owned that she had. He informed her that she might make her arrangements, and when June came she was duly married and went to live in the country. She recently came to see him, during a visit to London, and he found that she was quite well.

Dr. GOLDSBROUGH enquired whether the author considered it quite consistent with his principle to use the *scrophularia nodosa* ointment night and morning when he gave the drug itself internally in the unit dose. He also desired to ask, on the same principle, why in the second case Dr. Cooper repeated the doses of *gentiana lutea* and also of *ipecacuanha* and *belladonna*. Would it not have been applicable to the case to give unit doses all through as when giving the especial drug? Dr. Goldsbrough could hardly see how Dr. Cooper on any other principle could differentiate the influence of the drugs on the basis of the theory he gave at the beginning of his paper. They knew from experience that *gentiana lutea* was a proper medicine to give in certain stomach conditions and that it deserved careful consideration, and according to Dr. Cooper it would follow it should be given in the unit dose. Dr. Goldsbrough also desired to know where the temperature was taken in the case mentioned. Was it uniformly taken in the mouth, the axilla, or the rectum? He further desired to know whether any food was given during the period when the patient complained of hunger. The fact that the author had narrated the cases in detail was, in Dr. Goldsbrough's opinion, the chief feature of the paper, and one which he had very much enjoyed.

Dr. E. A. NEATBY expressed his thanks to the author for what, in his opinion, might be described as an awe-inspiring paper. Medical men were so seldom accustomed to tackle grave cases of the kind described with medicines, that when they saw striking results apparently accruing from forces which they regarded as inadequate, they were struck with awe at the fact that they possessed agents which produced such remarkable results if they only knew how to use them. Personally, he would be very much obliged if the author would give some further indications how to

use the two valuable remedies he had mentioned; also what he considered a correct indication for a repetition of the dose. Although an arbitrary period of a fortnight was very useful when making experiments, it was not desirable that it should be regarded as binding. Were there any indications, such as the opsonic index, for instance, gave in another sphere, which was one great advantage resulting from Sir A. Wright's discovery? With regard to treatment by drugs, he certainly felt that doctors must maintain a hopeful attitude. The case the author had narrated at length resembled in a remarkable manner one of the most successful cases that Dr. Jacob, of Brussels, had recorded. In both, after the patients had been operated on, they were pronounced to be suffering from an extensive malignant colloid disease of the omentum, they were going rapidly to the bad, but immediately began to improve after specific medicinal treatment. So far as the history went in Dr. Jacob's case the patient was permanently cured. The most successful case he (the speaker) had had was one in which the tumour was partially removed by operation, and in which neoformans vaccine was administered by the mouth, without the computation of the opsonic index. With regard to the question of the corkscrew-like pains which had been mentioned, he thought it was a little unfair to attach weight to a verbal description of that kind; if some more enlightening description of the pain could be obtained, it would be better than great emphasis being placed on such a verbal description which he, in over twenty-seven years of homœopathic prescribing, had never had occasion to meet. Lob. erin. would not be of much use if it was necessary to wait till the patient came along who chose the peculiar phraseology indicated by such a figure of speech.

Dr. SPIERS ALEXANDER stated that he had treated a lady with tumour of the breast last summer with *phytolacca* 1x, and in a very few weeks the tumour, which would undoubtedly have been diagnosed as malignant by many, entirely disappeared. Some years ago a patient came to him who had been the round of the London hospitals, where she was told that she was suffering from malignant disease of the breast, with enlargement of the axillary glands. He found the condition had been brought on by a blow, therefore gave *arnica*, and absolutely cured the patient.

Dr. COOPER, in reply, after thanking the members for the kind reception they had given to his paper, said the President had raised the question of giving drugs in high dilution at very long intervals. He, personally, did not consider the actual dilution of supreme importance, provided the remedy was the indicated one

and sufficient time was allowed to elapse after its administration. It seemed to be a generally conceived idea that the higher the dilution the longer the intervals should be between the doses; he, however, had found that many cases required equally long intervals after low dilutions. The case Dr. Clarke had mentioned in which *ornithogalum umbellatum* had proved curative was of special interest, in that the bowels, which had previously been constipated, had begun to act regularly. He (Dr. Cooper) had found constipation frequently associated with cancerous dyscrasia, and he always looked upon the sudden commencing of natural intestinal action, after a unit dose, as a valuable sign that the right remedy had been chosen. His late father (Dr. Robert T. Cooper) did not make a fresh tincture each time he gave a dose. The tinctures were made by placing the plant in spirit directly after being plucked, these same preparations being used years afterwards. In his later years he came to the conclusion that the greatest medicinal activity resided in the flower, and he favoured those preparations containing the flower alone, or the flower and a few of the smaller leaves. The term "fresh plant tincture" did not imply that it was freshly made at the moment it was administered. In the case he (the speaker) had described, the pulse did not rise particularly when the temperature fell—it was pretty much the same all through. He hoped Dr. Burford, on a future occasion, would give details of the cases of malignant disease in which he had used the cacodylate of soda, because they would demonstrate the advantages accruing from medicinally treating such cases after operation. In these cases of Dr. Burford the cacodylate of soda had been given in frequent doses, but he (Dr. Cooper) considered that the remedial action was similar to that which he had demonstrated as following unit doses, viz., a stimulation of the reactive forces of the patient. He did not at all maintain that it was necessary to give single doses with every remedy, some remedies undoubtedly requiring frequent repetition to produce the required effect. Dr. Goldsbrough had questioned him as to why he applied ointment frequently when commencing the treatment of the case of the child which he had described. His reason was that the case was a very severe one, and he was anxious to get the full effect of the remedy. At that time he was not sitting on so firm a saddle with regard to the power of the unaided unit dose, however, directly he found that the remedy had got to work he stopped the ointment and only gave single doses subsequently. Dr. Goldsbrough also enquired why he had repeated the gentiana

lutea. In administering the various intercurrent remedies he had endeavoured to choose those which would be least likely to upset the action of the main unit doses, his object being to endeavour to relieve the temporary symptoms set up in the system by the elimination of toxic material, without counteracting the main curative processes previously induced. The temperatures recorded in the case he had described were usually taken by the mouth, but when the patient was moribund they were taken by the rectum. Food had always been given to the patient when she was hungry. It might be remembered that on one occasion she had developed remarkable hunger after one of the doses of car-cinosin. Dr. Neatby had asked for further indications for the use of the drugs mentioned. In the case of *scrophularia nodosa* the provings of this drug might be taken as a guide; one or two special indications came out in the proving, such as "vertigo, greater when standing," and great "drowsiness." The provings did not specially point to lung symptoms, and he had been disappointed in this remedy in cases of tuberculosis of the lungs. Dr. Neatby had also asked when the remedy should be repeated. That was a varying quantity. In the case he had described, it was plain that although the patient could stand a repetition of the dose every fortnight at first, the intervals subsequently required were much longer, owing apparently to the fact that the rate of absorption of the growth was greater in the later stages of the case. One could only judge the time for repeating the dose by observing the patient, the whole condition having to be taken into account. In cases where it was easy to observe the diminution in size of the tumour, the length of the intervals between the doses should be in inverse ratio to the rate of absorption. He considered the average duration of eliminative action following a dose to be about ten days; some cases, however, derived greater benefit from more frequent repetition than this.

THE TREATMENT OF INFLUENZA.¹

BY PETER PROCTOR, M.R.C.S.ENG., L.R.C.P.EDIN., L.S.A.

As we are at present passing through our annual invasion of influenza it seems only fitting that we should direct our thoughts to-night to the best means of dealing with it on homœopathic lines, and I have put together a few remarks, not as a treatise on the disease, which we know by this time only too well, but rather as an expression of my own experience, and with the hope of eliciting your own experience in return, so that we may compare notes and ascertain our points of agreement in practice. We have no doubts as to the superiority of the homœopathic treatment, even though practitioners in general are pretty well satisfied with their own methods. The disease has not a heavy mortality, although the amount of subsequent debility and a host of chronic affections leave the sufferers more or less incapacitated for weeks or months, or it may be for years. It is in the few bad cases that good treatment tells—the vast majority would doubtless do well with simple nursing and rest in bed and a good fire.

The invasion this year came immediately after the short black frost with easterly wind, which was followed by a rapid thaw. Some of us are inclined to the idea that the thaw was responsible for the outbreak, but in my opinion it is the east wind that brings it periodically to the British Isles, and I think it may be observed that sporadic cases occur throughout the year when the wind blows from that quarter. As usual, the disease assumed predominantly either the pulmonary or the gastric form, with nervous disturbances common to both. It has seemed to me that when the gastric type occurred the free discharges by sickness and diarrhœa carried off the disease more quickly, leaving behind it, however, for some time a state of gastric

¹ Presented to the Liverpool Branch, February 13, 1908.

weakness; but fatal cases of this type do not seem to occur often. When the pulmonary tract is invaded and capillary bronchitis running rapidly into pneumonia occurs the danger-signal is in sight, for the terrible heart weakness is apt to supervene, a condition that we have learnt to dread.

We have, then, first the headache, backachè and pains in the limbs, all of nervous origin; then the fever—rigors, followed by heat and perspiration; then the catarrh, either of lungs or the alimentary canal; and then a more or less protracted convalescence, followed, perhaps, by such a variety of functional or organic changes as to tax all the practitioner's resources. It would seem that no one of our medicines covers the whole ground in the same way that quinine covers the general run of intermittent fevers. We have to select the *simillimum* according to the best of our judgment, and that varies somewhat owing to the personal equation. It were a consummation devoutly to be wished that the various morbid poisons that afflict humanity could be transmuted by a short process from the *idem* to the *simile*, as is the case with variola and vaccinia. Possibly some Pasteur of the future may be able to take a toxin and, by passing a current of ozone, chlorine, or other gas through it, convert it into a homœopathic remedy capable of acting rapidly in acute disease without the delay incident to the present vaccine treatment, with its negative phase occupying valuable time. In such case we might get a *simile* to the influenza poison far closer than any we possess in our *materia medica*. In the meantime we must search our repertoires for the nearest we can find. These appear to be, in the front rank, acon., ars., ars.-iod., gelsem., quinine, phos., baptisia, iodine, eupatorium perfol., and kali bichromicum and rhus tox. These seem to constitute our working implements in the acute stage. For the subsequent stage of convalescence something may be said further on. And now for a few remarks on each of these medicines. As just said, no one of the medicines mentioned appears to cover the whole of the disease, but only touches it at certain points, and we have to make our selection according to the symptoms that are most urgent. Aconite naturally comes first, and here it has

appeared to be decidedly useful in the very early stage in controlling the nervous and febrile symptoms and hastening on the perspiration stage, when some of the distress subsides. It is also indicated by the restlessness and cardiac weakness. In general terms we may say it fits in well with the very early stage, but later, when the catarrhal symptoms develop, it does not appear to be so applicable. But all through an attack, and at any period, acon. is capable of rendering great service in controlling nerve irritation pure and simple, and we know how largely the nervous element obtains in this disease. In this early stage many of our colleagues prefer gelsem., which undoubtedly covers the headache, the weakness and some of the early febrile symptoms, but it has not the catarrhal symptoms in its pathogenesis. Consequently it would seem to fit the passive and congestive state rather than the active, inflammatory one. It is not a medicine that has commended itself to me for any but the early stage, when nervous symptoms only are present.

In influenza we have an inflammatory element that calls for remedies other than those purely neurotic ; hence we come to consider arsenic. This noble medicine is pressed into the service of pretty nearly every form of fever, and even when not the simillimum, it is capable of rendering service. Its typical pyrexia is typhoidal, and yet we know how useful it is in malarial fever ; and in influenza it finds a prominent place because it touches the inflammation as well. There is a malarial quality in this disease, as is shown by the definite rigors followed by heat and perspiration of a profuse kind, and we often see a periodicity of return for a week or more after the temperature has sunk to or below normal. Notwithstanding the known value of ars. in malarial fever, the profuse perspirations of influenza do not seem to fall within the sphere of ars., which has rather cold perspirations, with collapse when there is any at all ; and it may be the case that in malarial fever ars. is more useful in the later stages, when blood impairment has advanced and the general nutrition is affected. At any rate arsenic has not seemed to render as much service in influenza as might have been expected. Some of our colleagues have a good opinion of

the iodide of ars. when the lungs are deeply involved, but in my opinion much more reliance in this condition is to be placed on antim. tart., which I may confidently say has rendered me the greatest service. In fact, I have come to rely on antim. tart. almost exclusively when we have capillary bronchitis over the whole chest, as is generally the case. Nothing that I have tried has been half so useful. If an allopath were asked what he thought best in this disease, he would probably say quinine, and some of our own colleagues would say the same. When we remember the achievements of quinine in ague and the malarial quality of influenza, we shall be ready to give a high place to quinine. For the essential fever and the aches and pains it is certainly very homœopathic. It requires, however, to be supplemented by some tissue irritant when inflammation supervenes. But because the use of this remedy is so general it is unwise in us to undervalue it in favour of others more special to ourselves. Whether it has any germicidal power here, as is supposed to be the case with the plasmodium malarie, one cannot say, but if it has we should be only too happy to be able to strike at the cause at the same time that we employ a dynamic remedy acting on the disease itself. I suppose we shall be of one opinion that in the pulmonary complication arsenicum, phosphorus and antim. tart. are the remedies we mainly trust to, these three, and the greatest of these, in my opinion, is antim. tart. For the bronchitis extending to the smallest tubes, and with râles over the whole chest and quickened respiration, I can speak of it in the highest terms. Of course there are cases of a pneumonic nature where phos. will come first, but when we have only bronchitis present antimony has seemed to do most good. Other medicines may have to be thought of in these cases, such as ammon. carb., chelidon, sanguinaria, lycop., iodiné, the iodide of sulphur, &c., according to special symptoms. I speak of the general run of cases. And now I must speak of the great value of rhus tox., which has served me so well. For the aching pains in the limbs, with the nightly restlessness, which are so distressing, rhus has proved all-sufficient. I was personally so benefited by it in the early days of in-

fluenza, and was so convinced of its exquisite fitness in these symptoms, that it has been my chief if not my sole remedy for them. Eupat. perfol. comes near it, but why use the latter when rhus. does the work? Some of our colleagues use bryon. in this condition, but it has not the restlessness and the nightly aggravations, nor the specific seat in the nerves which characterize rhus. Rhus has also seemed to exercise a beneficial influence over the general course of the disease, in which it is to some extent homœopathic.

In the first stage, then, quinine, acon. or gelsem., when the lungs are involved, antim. tart., ars. and phos., and for the nerve pains rhus., are, according to my experience, the most useful in general. As a prophylactic I would place most reliance on quinine, and as an adjuvant during the course of the disease it has seemed to be never out of place, for it has appeared to control the excessive temperature, even when other medicines have been called for in addition.

And now a word about the gastric form of influenza. As before stated, this type of the disease has not been attended with the danger of the pulmonary form. Verat. viride, ipecac. and verat. alb. have seemed indicated, and the cases have done well, although requiring after treatment in a good many instances; arsen. and coloc. have been useful in relieving such as had considerable colicky pain.

Heart failure, both in the acute and chronic stages of the disease, is always before our eyes, and I would ask you what better agents have we than the known cardiac medicines, arsen. aurum, cactus, digitalis, glonoine and alcohol, which latter must not be forgotten? It may be we may have to resort to sparteine, strophanthus or strychnia in emergency. In the subsequent stages of cardiac weakness, iberis, of which I have spoken elsewhere, is a remedy which has served me well in drop doses of the mother tincture three times a day. And now, having come to the convalescent stage, with its neurasthenia and neuritis and its possible derangement of any and every vital organ, I cannot undertake to speak. The name of these affections is legion and would require a volume to deal with them. Suffice it to say that amongst other remedies, salicylate of soda, hyper-

icum, arsenicum, cimicifuga, rhus and phos. acid have rendered great service.

And now, to conclude, I ask your pardon for the personal note that runs through these remarks, for as stated at the beginning, they are intended as an expression of my own individual experience, and I trust you will favour me with yours in order, if possible, to arrive at a common agreement as regards the treatment of a disease that has visited us with such regularity for many years past, and, for all that one can see, appears likely to do so for years to come.

Dr. EDMUND HUGHES (in the chair) thought that Dr. Proctor had given an excellent summary of the lines of treatment in this complaint. He thought that the members present might be able to add to the number of remedies mentioned by Dr. Proctor. He (Dr. Hughes) had as a routine measure this season, in the case of vigorous adults, given tincture of aconite (British Pharmacopœia) in one dose of 10 drops if he saw the case on the first day. For the pains he had been trying sodium salicylate, by itself unmixed, 10 gr. per diem. This appeared very successful, having the additional advantage of reducing temperature at the same time. Sometimes the indications for remedies were present and reliable, but often both in children and adults they were not. He had tried eupatorium in substantial doses, and this may have done good. Bryonia, though so often indicated, had often disappointed him, and had been tried in various dilutions and the pure tincture. Phosphorus 3x on sugar or in glycerine certainly acted as an expectorant. For the weakness afterwards he found liquor strych. hydrochlor. $\mathfrak{m}\mathfrak{v}$. or $\mathfrak{m}\mathfrak{vi}$. three times daily was extremely valuable. So also in some was arsen. iod.; also quinine in phosphoric acid, and in certain old people this seemed to benefit the cough as well. He had seen lately a number of cases very like acute intestinal obstruction, with pulse-rates from 120 to 160 in adults, but the absence of signs in the abdomen served to distinguish the cases as influenza. A young doctor unacquainted with influenza might have supposed there was something seriously wrong in the abdomen. All of these seen had done well, but needed "stimulants," such as digitalis and brandy, &c. The pneumonia was a most dreadful complication; it might be a mixed infection; nothing seemed to do it any good.

Dr. ELLIS observed that what he considered a very remarkable feature of influenza was the extremely low mortality of the disease and its sequelæ under homœopathic medication. In his experience he had found gelsemium the most generally useful drug during the acute febrile condition, supplemented by phosphorus as soon as distinct pulmonary symptoms showed themselves. In the debility, which so commonly remained after the acute symptoms had subsided, he had found phosphoric acid and china most generally useful. In the general treatment he believed most thoroughly in "bed" and alcoholic stimulants where the pulse was flabby or with any tendency to dichrotism.

Dr. HAWKES had seen many influenza cases during the epidemic. He had used but few medicines, as gels. 1x, bry. 1x, 1, eupator. perfol. 1, kali bichrom. 2, and sanguinaria 1x, 1, had served every purpose required of them. Sanguinaria had been as useful for the muco-purulent expectoration cases as kali bichrom. had for the cough in ordinary cases, in which the throat symptoms had been characteristic of that drug. The expectoration in these cases was stringy, tenacious and, however caused, dark. Strychnine $\frac{1}{100}$ and digitalis 1x were often required, especially in elderly people, during convalescence. Phosph. 2 was used in the few pneumonic cases. A few patients were ordered quinine in small doses after the attack.

The following also spoke: Drs. Moir, Cash Reed, Watson, Gordon, and Gordon Smith.

A CASE OF CONGENITAL ABSENCE OF THE VAGINA—HÆMATO-SALPINX AND SECONDARY PYOSALPINX.¹

BY GEORGE BURFORD, M.B., C.M.ABERD.

Senior Physician for Diseases of Women to the London Homœopathic Hospital,

AND

WILLIAM SPENCER COX, M.D.BRUX.

Assistant Physician to the London Homœopathic Hospital.

WE present the ensuing case to the Society not only on account of its extreme rarity, but also because it well illustrates the disadvantages of temporising operative treatment. However plainly such treatment may follow along the lines of least resistance, the plan is not always in the best interests

¹ Presented to the Section of Surgery and Gynæcology, February 4, 1908.

of the patient. It may spoil existence, burden the years of the patient with acute and useless pain, and ultimately, as in this case, endanger life itself.

At the present time the patient is a tall, well-developed single woman of 33. She first came under our notice some years ago, the history of our connection with the case being as follows :—

NOTES BY DR. COX.

I first saw L. T. in 1900, when, in pursuance of her duties as a trained nurse, she was sent to nurse a chronic case of heart disease I was then attending. I soon noticed that at certain periods she was suffering great pain and was obviously unfit to attend to her duties. After some time she confided to me the cause of her troubles, but although after this she nursed many cases for me it was long before she would allow any examination, so fearful was she of the intense pain which any interference occasioned. At last, however, growing much worse, she sought my help. On examination I found, as instructed, that both vagina and vulva were absent, but in the middle of the perineum was an unhealthy-looking shallow aperture, and deeply buried in this I could feel a hard instrument of some sort. Under cocaine and a whiff of chloroform I extracted this instrument, not without difficulty, as the tissues were quite adherent, and I now pass it round for your inspection. It is the instrument—very unsuitable I think—which Dr. Lewers had invented and placed in that position in the vain hope of keeping open his artificial vagina. Great relief was experienced, but I knew we could not rest there, and I consequently urged an interview with Dr. Burford.

But again some time elapsed before I could gain the patient's consent to this course, but at last reason prevailed and she placed herself unreservedly in our hands.

A detailed account of her symptoms will prove interesting, and at our request she has written down her earlier history, which, as she is an acute observer, we give verbatim :—

NOTES OF L. T.

Acute monthly pains started at 14, but without any discharge; severe backache and bearing-down pains, which lasted three to ten days every month, getting so severe that I had to leave school and have medical attention, hot baths, &c., but with no relief.

Saw Dr. R., of Reading, and had an examination, when he found there was no vagina of any description. He said I had better see Dr. Lewers and have an operation to allow the period to pass, but Dr. Lewers, after examination, said there was no fluid to come away, and therefore would not operate, but gave several medicines to relieve pain.

After two years of intense suffering, and my getting *very thin*, Dr. Lewers was persuaded to perform an operation, though he was still under the impression that there was no fluid to come away, but thought there might be some growth in the womb.

Operation took place at the age of 16½. Dr. Lewers found a great deal of very dark thick fluid in the womb and tubes. He made an artificial vagina, which he said was large enough to "get his fist in," and he kept this open by plugging, &c., until healed sufficiently to admit of an instrument being inserted. It took five months for the place to heal.

I had the period with practically no pain afterwards, but slight backache every month regularly. I had the instrument changed every month to start with, then every two or three months, for four years, but finding later that the instrument "grew in" each time I preferred to leave it there rather than submit to the pain of having it wrenched out, as I was then training as a hospital nurse. Each month the same bearing-down pain, backache and sickness first thing in the morning started during the period again; so much so I had to give up my work for a time and see Dr. Spencer Cox, who, on examination, found the instrument grown in and the parts very inflamed. He removed the instrument, which gave great relief for a time. He then said it was very necessary I should see Dr. Burford, who, after examination, said an operation must take place.

Here we pause in the patient's narrative to describe her condition at this stage.

The external parts were otherwise well developed, but there was absolutely no trace of any vulvar aperture or vagina, but a conical puckered depression about 1½ in. deep presented itself in the perineum. The base of this depression as it debouched on to the skin, was about the diameter of a florin.

The whole excavation had the appearance of a small shallow crater, and ended in what seemed a blind extremity. We say seemed, for though some periodic discharge was

squeezed through each month, repeated and careful probing could find no aperture of exit. We concluded we had to deal with a sinuous contorted fistula, unfindable by examination, and so turned our attention to the internal reproductive organs.

Operation was accordingly carried out in 1903; the abdomen was opened, and a pathological scene presented itself.

The approach to the pelvis was blocked by a tangled mass of dense adhesions, obscuring the outlines of the viscera, showing clear evidence of former intense peritonitis.

Beginning work on the left side, these adhesions were worried through, a process of extremest difficulty, occupying some considerable time. Gradually the irregular outlines of a diseased and distended Fallopian tube and the accompanying ovary began to present themselves, and, after most careful detachment, were successfully removed. The uterus and the right appendages were now examined, but as similar dense adhesions completely surrounded them, and examination revealed no notable enlargement, the abdomen was rapidly closed, as the patient's condition was causing us some anxiety.

The shock of separated adhesions was considerable, as is usually the case when these are very dense. Intravenous transfusion was carried out, some four pints being conveyed into the left median basilic vein.

The patient at once began to rally, the recovery proceeded with no further notable incident, and the patient left hospital. As the chief pathological factor in the pains had been removed, we hoped that the periods would now proceed in a relatively painless manner.

Let us again pick up the thread of the patient's narrative :—

NOTES OF L. T.

I afterwards found great relief for two years; after then the same pains gradually returned, but with greater force and much sickness, lasting ten days to two weeks at times, and always necessitating my remaining in bed for four days to one week during each period. I could now only get relief by having morphia and

hot baths during the period, and was unable to take solid food or get much sleep, but when the period was over I felt very well and again able to take up my work.

About once each year I got a particularly bad attack, which would last for three weeks, apparently caused by the period not coming on, although all other symptoms were present, with great retching first thing in the morning and sometimes during the day. At these times I was not able to eat or sleep, though I had hot baths and morphia for three or four days, when the period would appear and last about three days.

I had one of these attacks in September, 1907, which lasted two months and caused agony for five weeks, the period not coming on properly, but being on and off for two weeks; when it did come, after poulticing, &c., it was dark in colour, thick, and lasted five days. During the five weeks I had great sickness and could not keep even liquids down, and had hardly any sleep, having morphia morning and night.

Here ends the personal narrative.

When the patient was sent into hospital by Dr. Spencer Cox in December, 1907, she was evidently much reduced in health; her pulse was weak and feeble, her temperature rose over 100 usually once in the twenty-four hours, and her general condition caused grave anxiety to us. There was, *per rectum*, a very well-defined swelling felt on the right side, and the summit of this swelling was easily palpable from the abdominal side.

Dr. Moir saw the patient repeatedly with us, and after about a month's probation operation was carried out. The patient's medical attendant in the country, Dr. Macpherson, a prominent allopathic physician, of Henley, being present, together with Dr. Spencer Cox; Dr. James Johnstone assisted, and Dr. Granville Hey performed transfusion.

On opening the abdomen a bulky mass completely surrounded by adhesions was disclosed on the right side. With difficulty a clear space was made, and as the swelling was fluctuating it was tapped, and several ounces of foul sticky pus withdrawn.

What we had to deal with was a pyosalpinx which had developed since the last operation on the non-operated side. Now commenced one of the most difficult and delicate pro-

cedures in pelvic surgery. This pyosalpinx of some dimensions had developed from the congenitally defective tube; beneath the peritoneum and for a considerable part of its area it had to be separated from the bony pelvis.

This enucleation required the utmost *tactus eruditus* to avoid a tear or rupture of the sac wall. At length the whole neoplasm was disinterred from the depths of the pelvis and removed. Attention was then directed to the uterus, which was removed also, and the gaping, bleeding area stuffed with gauze, which was left protruding through the abdominal incision.

Again the patient suffered severely from shock, and again about four pints of saline fluid were transfused, this time into the other arm—an operation carried out most skilfully by Dr. Granville Hey; and the patient put back to bed a little later.

But in spite of this and other attention the patient did not rally, and during the afternoon her condition caused such anxiety that Dr. Percy Purdom, the house physician, again transfused, this time subcutaneously, to the extent of three pints.

This was done slowly so that no fluid remained unabsorbed; and the effect was to induce a gradual and maintained improvement in the patient's state. For three days the condition was critical; thereafter the progress was unbroken; and after completing her recovery the patient went away from town late in January, free from ache or pain, and with no likelihood of any recurrence of them, as the periods had been eliminated from the functions of the body.

We may here say that the uterus, an ill-shaped undersized organ, was removed down to near the level of the internal os.

This case well illustrated the disadvantages of so-called constructive operations in cases of congenital defect; which, as in this instance, often give rise to persistent pain and trouble, threatening permanent ill-health to the patient.

Had the imperfectly developed uterus and tubes been removed in the first instance and the ovaries left behind,

long years of disabling pain and a much more serious operation would have been obviated.

The advantage of doing a plastic perineal operation in such a case as this, without taking into account the enormous risk of a pregnancy which might have ensued in case of marriage, is still to seek.

Finally, we cannot emphasize too vividly the use of transfusion as a life-saving measure in surgical and other cases. In this instance the patient without doubt owed her life on two occasions to this procedure—a procedure which, as conducted by Dr. Purdom, is available for every physician, however hardly worked; and as conducted by Dr. Granville Hey, available for every surgeon; controlling not only the shock during operation, but also the post-operative lack of rallying power which so often proves fatal. Were this measure, of sovereign value, more frequently used, and used again and yet again in acute crises, we should have less of the formula adopted by a distinguished surgeon, now dead, who described fatality from shock to the friends as “The patient passed peacefully away the same evening.”

Dr. SPIERS ALEXANDER (in the chair) remarked that the Society had had the advantage of listening to an exceedingly instructive paper. Fortunately the things spoken of in the paper were rare. He thought what had been brought before them was convincing that constructive attempts in such cases had better be avoided. If, as the paper had pointed out, extirpation had taken place at the outset, the patient would have been saved many years of acute suffering, and also the great danger in which her life was placed. The case was an example of the value of transfusion, which, he supposed, had now become almost a routine method in all cases of shock. While the patient was under treatment there was great anxiety all through the hospital about her, and it was hardly thought she would survive, and yet, as a result of transfusion, she was now alive and well.

Dr. BYRES MOIR enquired whether it was usual, when there was such a want of development of the genital organs, for the patient to have such fine physical development otherwise as Dr. Cox's patient had. She was a fine, handsome, well-developed woman, and he enquired whether it was a usual experience to find

such a condition with a malformation and such small internal organs as in the case described.

Dr. GRANVILLE HEY said he had seen four cases—one of which he had at present under observation—in all of which the patients were well developed physically with the exception of the pelvic organs. In connection with the constructive operation he thought it was altogether wrong to make a sweeping assertion against that operation; the result depended almost entirely on the amount of constructive work that had to be done. He had seen several cases in which the constructive work done had been perfectly efficacious for the purpose for which it was intended. In a case like the one under discussion, where there was complete absence of the vagina, it was a different thing altogether. In Vienna he had seen a case where there was a vagina present to the extent of about $1\frac{1}{2}$ in., and that was very successfully operated on because the uterus happened to be low down, and, comparatively speaking, there was very little tissue to be traversed to get to it.

Dr. NEATBY congratulated the authors of the paper on the very successful issue of an extremely difficult case. He had had the advantage of examining the patient once with Dr. Burford in the ward, and it certainly suggested a good deal of what was afterwards found to be the condition—an extremely difficult and almost impossible condition with which to deal, a fact which was all the more credit to the operators for the success which they had obtained. He would like to answer Dr. Moir's question as to development. He (Dr. Neatby) had seen a considerable number of cases of malformations of one kind and another, and he was quite sure it did not follow that the absence of either the primary or the secondary sexual organs was accompanied by any corresponding deformity or want of development in the general system. One could have an entire absence of the uterus and ovaries and yet have well-developed external organs and thoroughly good physique; and one could have an absence of the external genitalia with well-developed internal genitalia and similar good development of the general body form. He thought Dr. Hey had made a judicious remark with regard to the operations in question.

Dr. ROBERSON DAY said in connection with development it appeared to him that the case of the male was very different from that of the female. He had at present under his care a young gentleman, aged 20, who was a eunuch. He had the appearance of a lad of 15; his voice was unbroken and there

were no signs of manhood in him. The testicles were absent from the scrotum, although probably retained in the abdomen in a more or less rudimentary state; the penis was entirely rudimentary, the pubic hair was very scanty, and there were no signs at all of hair on the face.

Dr. STONHAM mentioned a point in connection with the question of development, namely, that when animals were castrated when young their physical growth in later years was not affected; the animals so treated were well developed.

Dr. GRANVILLE HEY did not think those conditions held good as a rule, because in the one case doubtless the organs in question would have developed had they been allowed to remain, and in the other there was no tendency for them to develop. He supposed Dr. Stonham was referring to their old friend the domestic cat. If one castrated a cat when it was very young, it almost always developed into a particularly fine cat in later years. The glands were there to begin with and showed that development in other ways was perfect, but if there was no tendency for development of the glands then there might be defective development in other parts of the body. It was a well-known fact with regard to eunuchs that they were very often fine specimens of manhood.

Dr. DAY enquired whether such men had beards.

Dr. HEY replied that it depended on the time at which they were emasculated. The cat without his testicles and the sow without her ovaries developed into very fine fat animals, so that the presence of the ovary perhaps did not altogether account for the fine development.

Dr. Cox, in reply, thanked the Society for the kind reception given to the paper. With regard to Dr. Moir's remarks about physical development, he had himself had two or three of these cases, not exactly the same, but very similar. Curiously enough, he was attending one at the same time as the case under discussion, in which the patient had practically no uterus. She was a remarkably well-developed and attractive girl. In two other cases also, where the uterus was entirely infantile, the patients were well developed. In another case under his care at the present time the patient was extremely badly developed, but it seemed to him that in the majority of cases the development of the patients was rather above the average. With reference to transfusion, he himself had seen, in a bad case, transfusion performed three times, of about four pints each time, making a total of twelve pints, with undoubtedly excellent results. Dr. Burford and he did not make any sweeping assertions to the effect that all

constructive operations were bad; undoubtedly many of them were good, such as the operation for imperforate anus. It was only in certain cases that such operations were bad, and the one referred to in the paper was certainly a case where such a procedure was not at all called for.

RADIUM AS AN INTERNAL REMEDY IN CANCER AND DISEASES OF THE SKIN, WITH PROVINGS AND CASES.¹

BY JOHN H. CLARKE, M.D.

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A priori it would seem exceedingly unlikely that such a potent physical agent as radium has proved itself to be should be anything other than a great power when used internally as a remedy. But how are we to find our indications for its use, and the best preparations in which to administer it? The homœopath has but one answer to these queries—*try*. Thanks to the enterprise of Mr. Armbrecht, all workers with radium, be they homœopathists or physicists, have an opportunity of carrying on their experiments. Mr. Armbrecht prepared homœopathic potencies of radium bromide, and the 30th potency of this salt is the one I decided to put to the test first of all both for proving and curative work.

The points supplied by those who had worked with radium as an external remedy were not many, but they were distinctive enough. In the first place M. Curie himself supplied a "leader." "If there is one thing I know about radium," says M. Curie, "it is that *it will burn*." In the *Pall Mall Magazine* of October 17, 1903, is an account of a visit paid to M. and Madame Curie by Mr. F. Lees, and in the course of the interview M. Curie made the following remarks:—

"The doctors think that they can cure lupus and polypos—perhaps cancer—with it, but I know nothing about

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that, it is their business, not mine. But *it will burn*. I can testify to that. I put a tiny bit of a salt of radium in an indiarubber capsule, fastened it on my arm and left it there ten hours. When I took it off the skin was red, and the place soon turned into a wound, which took four months to heal." He pulled up his sleeve and showed a white cicatrice the size of a shilling, with the skin round it puckered and discoloured. "Another time I tried it for half an hour only. A wound appeared *at the end of a fortnight*, and took another fortnight to heal. On a third occasion I tried it for eight minutes only. *Two months later* the skin became red and a bit sore, but it soon passed off."

Another point brought out by M. Curie's experiments is the *lateness* of the appearance of the symptoms, and the long time it took for the ulcer resulting from the burns to heal.

The tremendous energy thrown out by radium will naturally suggest to the homœopath a centrifugal action—an antipsoric effect—in throwing central diseases out upon the skin. Hence homœopaths would not be surprised to find in it a remedy in many affections appearing on the skin. The use of radium among allopaths has been confined to its use as an external agent in external affections, notably epithelial cancer, lupus, nævi, port-wine stains or nævi-flammei; and Mr. Armbrecht informs me that he had frequently seen warts disappear after a few applications of the rays. I shall be able, I think, to show homœopathic warrant for many of these "allopathic" uses.

In addition to M. Curie's experiments on himself many observations have been made on animals and some on patients. Plants have also come under experiment. Under the action of radium rays plant growth and development are checked, ferments lose their power, protozoa are first stimulated and then die. Culture growths are arrested and then die. Shelled organisms are more resistant than those containing chlorophyl. In animals, development and regeneration are retarded. Red corpuscles lose their hæmoglobin and salts into the serum. The central nervous system is

peculiarly sensitive to the action of radium, and young animals are more susceptible than the older ones (Louis Hussakof, *Med. Record*, July, 1907; *Brit. Med. Journ.*, September 21, 1907).

Mr. Roux made experiments on animals early in 1904. If a tube containing radium was placed near the skull of a small animal (*e.g.*, mouse) paralysis and death followed. If it were hung above a cage containing the animals the same effect followed, but at longer intervals. Among the effects noticed by Roux was redness and irritation of the conjunctivæ of the animals.

The first effect of radium held near the human skin is to cause an intense erythema, which leaves behind a brownish pigmentation, unless it has been severe enough to lead to ulceration.

These were the data available from general medical literature. I will now proceed to give an account of the provings.

PROVINGS.

I.

A. B., male, aged about 50, blue eyes, clean-shaven, nervous, sanguine, good health.

April 22, 1904.—Took six globules of radium bromide 30.

April 26 (fourth day).—Discovered two white patches on penis, one at root, one on right side. These patches were covered with fine scales and proved to be of the nature of psoriasis. They cleared off and others appeared on other parts of the organ; had circular or serpiginous edges. This recurred for many months. There was absolutely no abnormal sensation in them.

May 2 (eleventh day).—Shivery; bilious feeling; stools paler than normal and more frequent. This condition lasted three days, when the shivering departed.

May 5 (fourteenth day).—More mucus in nose without having taken cold.

May 7 (sixteenth day).—Bowels very relaxed still, stool in loose bits, parts almost watery, darker in colour. This condition lasted many days; sometimes the stools were light,

sometimes there were tags of mucus. They did not become normal till July 27. This morning tongue very sore, right side, about the middle. A callosity or corn on the inner border of right foot, which had been present at least twenty years, was found to be almost gone; it disappeared completely soon after and has not returned.

May 19 (twenty-eighth day).—Eyes smart and look red; this was noticed by others. This passed off and reappeared with greater intensity later. Passed away about June 7.

June 5 (forty-fifth day).—For a few days the skin of the face has been irritated; this day is very much so. This condition gradually got worse and lasted altogether over two months. The skin became thickened and, when scratched, which gave the greatest relief, exuded a clear moisture. It was greater after washing (which caused oozing) and after shaving (shaving could only be done, in consequence, every second day); relieved by washing with *very hot* water; worse at night when warm in bed. It prevented sleep, and a pocket-handkerchief had to be kept applied to absorb the exudation. The sensation was an intense itching and scratching was intensely delightful, but could only be sparingly indulged, as it was followed by burning and stinging along with oozing.

June 12 (fifty-second day).—For several days past has had pain under left scapula. It appeared to have passed off upon 11th, but was felt on waking on 12th; worse on moving and putting shoulder back, better after rising.

August 5 (eighty-eighth day).—A small nævus (of the canceroderm variety) about centre of chin to the right of middle line has turned black. In a few days this scaled off and the nævus was cured.

August 7 (ninetieth day).—After several vain attempts to arrest the march of the proving, which was becoming well-nigh intolerable, rhus venenata was selected as a possible antidote. This it proved to be. The next day the face was decidedly better, and, under the continuance of this remedy, the skin gradually became normal after scaling.

August 9 (ninety-second day).—The skin could be rubbed and scratched without causing any oozing. In a few days it was possible to resume the daily shave.

August 29 (112th day).—A slight recrudescence occurred and again rhus ven. was taken. The same thing occurred the following spring after motoring. At times during the proving there was slight inflammation at the umbilicus.

II.

Miss X., aged 34, rather dark, bilious temperament, somewhat athletic build. Took radium bro. 30, six globules, on June 3, 1904, at 10 p.m.

June 4 (second day).—Dry mouth in morning. Headache in occiput in the morning; a tight feeling increasing on motion. In evening indefinite toothache.

June 5 (third day).—Still headache, increased on moving about. No appetite for lunch, feels sick, cannot eat meat (this symptom lasted many months). Tongue white. Chest feels tight, as if she could not get air enough. Hands cold.

June 6 (fourth day). Still feels sickish. Unable to eat bacon for breakfast. Can only eat fish for dinner. Weight 9 st. 3½ lb.

June 24 (twenty-second day).—Still off appetite for meat; gets a stuffed-out feeling after food. Cannot smoke (the prover, as a rule, smokes cigarettes and inhales). Bowels confined.

I now began to treat her for the condition and ordered sulph. 30 night and morning.

July 6 (thirty-fourth day).—Got indigestion after the sulph.; symptoms continue. The period, which is due, has not appeared. Skin of face very dry. An eruption which she had on the chest before taking radium had disappeared. Tendency to piles last three weeks. Earache in right ear to-night. Pulsatilla 30 was given, and afterwards merc. viv. m. i.

July 13 (forty-first day).—Much pain in ear, stitching, throbbing. The ears were syringed and much wax removed from both and hydrastis 30 given.

The ear continued to give trouble, though in a less degree, and she was deaf off and on. The indigestion and stuffed-up feeling alternate with earache or pain in the chest. The period now came on and was no different from ordinary.

July 20 (forty-eighth day).—Has been able to smoke the last two days. Weight 8 st. 13 $\frac{3}{4}$ lb., a loss of 3 $\frac{3}{4}$ lbs. The patient looked very ill all this time.

July 27 (fifty-fifth day).—Feeling very seedy, as if going to be ill; as if she could hardly crawl about. Throat sore; ear aching; feels as if bruised inside. Aversion to meals continues.

I was getting anxious about this prover, and as soon as I found an opportunity, after I had discovered in rhus ven. an antidote to radium, I gave that medicine on August 27 (eighty-sixth day).

August 29 (eighty-eighth day).—This morning, for the first time, ate bacon for breakfast. Had no indigestion to-day. Period rather less painful than usual. An old boil on the thigh became active; corns which have given no trouble for years became very painful.

III.

Mrs. W., aged 48, tall, grey eyes, nervous. Much troubled with neuralgia and headaches after influenza, but at the time of the proving free from them.

June 3 (first day).—10 p.m. Radium bro. 30, six globules.

June 4 (second day).—Pricking and peppery sensation in left nostril in evening.

June 5 (fifth day).—Generally seedy to-day. Much headache.

June 10 (eighth day).—Has been off appetite, especially for meat.

Old symptoms now returned and the prover had to be treated for them: thus the proving had to be considered at an end.

IV.

Dr. T. G. Stonham has kindly given me the following account of a proving made on himself.

On February 24, 1906, I took five drops of radium 30x before breakfast and again before lunch.

February 26 (third day).—Noticed some secretion on the lashes of the right eye on waking.

February 27 (fourth day).—Right eye began to feel sore,

with occasional sticking pains and increased secretion. There was some general malaise. The eye symptoms continued through the week. The eyes were < reading and artificial light; > closing the eyes. The eyes were injected as to the sclerotic vessels traversing it up to the cornea both from the inner and outer sides. Occasional itching of the lids (< upper lid).

March 3 (fifth day).—Examined by Dr. Macnish, who reports: “Blenorrhagia of right eye; injection of sclerotic and slight injection of the lower part of the cornea; slight infiltration of the lower part of the cornea; the eye looks watery; tension the same in the right as in the left eye; pupil of right eye dilates less actively than that of the left; it also contracts more sluggishly. Slight patchy erythema diffused over the forehead.

March 4 (tenth day).—Woke with right eye very painful, with a feeling as if there was a foreign body in it; better after going out into the air. For the rest of the day felt it very little.

March 5 (eleventh day).—Right eye much better. Left eye has had a sensation as if a loose eyelash were in it on several occasions, not very painful; slight soreness of ball of left eye. A few injected vessels run over the sclerotic to the cornea in the left eye.

March 6 (twelfth day).—Both eyes much better. All symptoms rapidly cleared off from this date.

I will now give a proving of another description, and a very remarkable one it is. I take it from an article by Dr. Burleigh Parkhurst, of Los Angeles, California, which appeared in the *Pacific Coast Journal of Homœopathy* of June, 1904. Dr. Parkhurst's article I consider one of the most valuable contributions which have hitherto appeared on the action of this remedy. I shall make large quotations from it, and I wish here to record my most cordial thanks to Dr. Parkhurst for publishing his experience. He has used radium internally as well as externally, and I believe the first internal use recorded is that contained in his article. I quote now from his article what I term

PROVING V.

Dr. Parkhurst says: "The most remarkable experiment that I have ever seen reported was that of Goldberg of St. Petersburg. He fastened to his arm 75 mg. of radium in a box, the exposure being made through a mica window. The box was strapped to the arm for three hours. The strength of the radium is not stated, but probably it was a low grade radium, because of the quantity used, and also because at that time low grade radium was more commonly used. (Fourth day).—In four days after the exposure a red patch appeared, which became larger and increased until on the fourteenth day there was a necrotic ulcer, which spread in a serpiginous form.

"Later, four other similar ulcers appeared on the *chin*, on the *hand*, and one in the *groin*, affecting the tissues down to and including the corium. These lesions broke down in a superficial sloughing ulcer, which increased for several days and then retrograded and gradually healed, the *distant lesions healing first*.

(Twenty-first day).—"After three weeks the first lesion on the arm was an atonic ulcer in process of repair. From first to last there was no pain, no swelling or heat locally, and no fever or other constitutional symptom. The ulcer was cold, necrotic and torpid.

"You will notice," continues Dr. Parkhurst, "that this is very different in action from an X-ray dermatitis, and therefore the action of the radium rays is definitely different from the action of the X-ray. I think that the ulcers which appeared at parts distant from the site of exposure are of considerable significance, although I have seen no comment made upon it. To my mind, taken in connection with certain characteristics in a case of my own, which I will call your attention to later, *there is some kind of metastatic action*. It seems to me most probable that *the blood serum is one of those substances which are capable of becoming radio-active, and that in this case the blood became radio-active and had an effect on the tissues distant from the point*

of exposure wherever from any cause the vitality was weakened." (*Italics mine, J. H. C.*)

Passing from this proving, I will now give a case treated with radium rays by Dr. Parkhurst, because this case shows so plainly the *constitutional* action of the rays and confirms certain points in the provings detailed above.

In this connection I may say that, though I had marked Dr. Parkhurst's paper for future reference, I was unaware of its essential importance until I studied it recently. Great was my pleasure to find that many of the symptoms of my provings were confirmed by Dr. Parkhurst's observations.

"The first case," says Dr. Parkhurst, "that I got for experiment with radium was one of inoperable carcinoma of the cervix. The woman should have been operated upon six or eight months previously. When I was called in the case was in the last stages. She probably had not more than ten days or three weeks to live. Locally the vagina was entirely filled with a mass which involved apparently the posterior wall of the uterus. The vagina was so completely filled that it was difficult to get the finger within the introitus vulvæ. The systemic condition was one of apathy and torpor. She was oedematous from one end of the body to the other. She was in a jaundiced condition, had not slept without an opiate for a considerable time, could not raise herself from the pillow nor turn herself in bed, profoundly anæmic, had no appetite, no action of the bowels to speak of, passing very little water, and was beginning to have, with a weak heart action, a dangerous dyspnoea. Mentally she was torpid and apathetic, and it was evidently only a question of days before she would drop away. You can see that this was not a very favourable case for the action of any remedy. Treatment with *radium* was only suggested as a last resort, and with the understanding that nothing was expected beyond the mere satisfaction of knowing that everything that could be tried had been tried. But almost from the first the effect was startling. The patient died, it is true, but for some time the favourable results of the change of treatment were most interesting, and, as I say, startling. I

should like to give the history of this case somewhat in detail.

“We began very carefully, because we did not know how active the radium might be upon normal tissue. The radium used was 10 mg. of pure radium bromide in a glass tube, the same tube that I have shown you already. I believe it to be of a radio-activity of over 1,000,000; at any rate, it is the highest grade of radium that I can get in the market to-day. I wrapped this small tube in cotton and that again in lead foil in such a way as to allow the end of the tube to project from the covering. I inserted this to the bottom in a glass vaginal plug, and inserted this within the vulval opening as far as it would go. For the first few treatments the exposure was five minutes every day. It was then increased to ten minutes for five treatments, when, from the action of these eight treatments the result was so marked that we gave her placebo to watch the case. These marked results were as follows:

(Third day).—“After three days’ treatment the discharge from the vagina had become very profuse, and she was very much easier as to general comfort, and began to be interested in what was going on. (Sixth day).—On the sixth day she sat up in bed. She had begun to want something to eat and the dyspnoea was getting less. (Eighth day).—On the eighth day discharge was still going on, the dropsy was improving, the jaundice was disappearing, the tumour was so much less in size that there was quite a space around it in the vagina. She was much more cheerful and in every way was much better. *She had been sleeping regularly without any opiate whatever, almost from the first, and had had a movement of the bowels quite naturally.* For a week she had placebo, during which time the favourable action continued. She was bright and cheerful and there was some slight redness beginning to appear in her cheeks. The tumour was getting less in size, and, as I say, the improvement was general. About this time we made an examination of the tumour with electric light and found the abnormal tissue covered with a white necrosis, which was continually sloughing off, sometimes in fluid, sometimes

in flakes, and even in shreds. From this time on progress was continuous and of the same character, until once she got out of bed by herself, although she had to be helped in again, and the tumour finally became so small that the whole vagina was patulous and we could make out only the hardness in the body of the uterus and some small masses around the external os posteriorly, which were apparently getting less. (Twenty-first day).—On the twenty-first day this improvement began to cease. Her appetite began to get less; the urine, which had been almost normal, increased, and she began to feel weaker again. We began to increase the dosage of the radium, which we did until we were giving fifteen minutes' exposure every day; but we could not bring back the improvement, as she gradually failed, with return of the old symptoms of dropsy, heart failure, and finally dyspnoea, and she died in a few days, dropping off very quietly from exhaustion, with no pain or discomfort, the end coming within four or five days of the cessation of improvement. We had been so surprised by the action of the radium in this case that we did not know what to expect. We hardly believed that the woman could live, and yet the improvement was so remarkable that we were almost willing to believe anything. As it was, instead of having her drop off in torpor in a few days, we kept her alive, comfortable, bright and happy for the better part of a month. And I believe that if we had had this case much earlier it would have been a case of carcinoma cure; but it was too far gone, and there was not enough vitality left to carry the thing through. Several things in connection with this case I should like to note. *When we began treatment there was a small, nevus-like spot on the end of the nose, which had been increasing for some time. This, under the action of radium, apparently decreased until it disappeared altogether.* It seems to me that this must be due to some action similar to the metastatic spots that I spoke of in Goldberg's case. If this action of radium was not through the blood, how did it come about? Another characteristic result is one which I have noticed in every case where radium has been used locally. *The bowels began*

to move normally and continued to act as long as she lived. The action on the dropsy and on the kidneys seemed to be similar."

Thus far Dr. Parkhurst's case strikingly illustrates the constitutional action of radium when externally applied, and it shows that the action is not merely local as is generally supposed. It fully confirms proving No. 1 in a most important detail—the disappearance of a canceroderm on the face as well as in the relaxing effect on the bowels.

CASES TREATED WITH RADIUM.

Before going on to detail my own cases I will conclude my quotations from Dr. Parkhurst by giving his. He used "radio-active water," and this is the first record I know of in which the remedy was used internally.

RADIO-ACTIVE WATER.

"I have personally used," he says, "radio-active water, or at least water which I supposed to be radio-active, inasmuch as I had exposed it for from twenty-four to forty-eight hours to the action of the radium. I administered internally in two cases, the patient taking several glasses of the water in twenty-four hours.

"Case 1.—*Neurasthenia, Constipation, Acne Rosacea.*

"The first case was one of neurasthenia, with an undiagnosable condition in the epigastric region, with a great deal of pain about the pylorus, no tumour or other local lesion discoverable. We tried radium water in hopes of quieting the pain. She was very constipated, and we noticed that the bowels began immediately to act more regularly. Her appetite increased and the power to taste, which had been absent, gradually returned. She also reported that a catarrhal condition of the larynx improved. The most remarkable result, however, and the one for which I report this case, was the improvement in an old acne rosacea about the nose and cheeks. This condition began to clear up at once, and when we left off treatment was practically well. She took four glasses a day of the water, which was prepared by immersing the glass tube of the radium in a gallon of water for twenty-four hours. This woman had been addicted to morphine and other

drugs to quiet her nerves, and, of course, that complicated the case. She had the radio-active water every day for four weeks, when I stopped treating her, because I could not see that I was doing her enough good to advise her to keep on.

"Case 2.—Acne Rosacea.

"A sister of the last patient, a stout, florid woman, had a similarly unhealthy skin, marked rosacea of the face, wished to take radium water because it helped her sister so much. She took it for two weeks, and the rosacea was very markedly improved, but she stopped treatment before the rosacea was well because she said she did not like to drink so much water. She was taking four glasses a day of water prepared at the same time and in the same way as that I was giving her sister."

I will now record some of my own cases, and I may point out that in nearly all of them a single dose of the remedy was given in exactly the same potency as that used in the proving. This disposes of the somewhat specious "explanation" of homœopathic cures by postulating an "opposite action of large and small doses." The dose which caused was the dose which cured, and the potency was the same in both.

Case 3.—Prurigo.

A colleague consulted me about himself in October, 1906. He was suffering from an itching of the arms chiefly, but extending all over the body. I first suggested *æthiops antimonialis*, and here is his report thereafter:—

"November 3, 1906.—I have been on *Æthiops* since I saw you, but with little or no improvement, and this itching hide of mine makes life a burden. No definite symptoms, except aggravation towards evening and night, worse on the arms and neck, but extending more or less all over, not burning itching, but simply irritation with raised surface after scratching. Have tried everything likely—*urtica*, *roton tig.*, *copaiva*, *antipyrin* 2x, &c., &c., and am really getting desperate."

This forcibly reminded me of proving No. I., and so I prescribed a single powder containing six globules of radium No. 30. In a week he reported himself distinctly better. The improvement steadily went on to complete cure in a few weeks' time, without further repetition of the remedy.

Case 4.—Prurigo.

Mrs. C., aged 84, had a paralytic attack affecting the left side of the body in March, 1906. The disease followed influenza, and was probably occasioned by it. The patient was previously otherwise healthy, except that she was somewhat feeble on her legs.

May 20, 1907.—She wrote from the country to ask if I could do anything for an intolerable itching seizing her day and night at intervals, affecting the back across the shoulders and down the backs of the arms. A carbolic lotion which had been prescribed by an allopath failed to give any permanent relief, though it eased temporarily. Rad. brom. 30. gl. iv. in powder, one dose.

May 24.—Itching not quite so persistent. Begins at 2 a.m. and lasts till the lotion is applied. After a week the lotion was discontinued.

June 6.—Attack now begins 3 a.m. and lasts till 4 a.m., then dies down till breakfast. It is intolerable for the hour.

June 16.—I was in the country and had an opportunity of seeing the patient and her attendants. The latter were very emphatic about the improvement. The patient does not disturb her nurse at all in the night now, and the irritation does not come on till 5 a.m. There is none at all during the day. I was able to satisfy myself that there was no eruption of any kind. The skin was perfectly smooth and natural, except for a very slightly roughened patch over the left scapula. Repeat rad. brom.

July 4.—Better.

July 21.—Well.

Case 5.—Corn of Right Foot.

I gave to a gentleman, aged 60, who had long had an eruption of psoriasis on the back, a single dose of radium bromide 30 on July 27, 1906. There was no marked effect on the eruption, but the patient noticed that a corn fell off from the right foot, though a similar corn on the left foot was unaffected.

Case 6.—Eczema.

Mr. A. D., aged 34, tall, fair, reddish hair, subject to hay fever, and during one attack had an abscess in the nose, after that he had boils in various parts, and following the boils eczema. He had taken in his time "gallons of tonics," and in spite of that had been losing weight slowly for the last two years. He had been twice vaccinated, the last time two or three years before I saw him. Before the boils came out he used to suffer from headaches. The localities in which the eczema was worse were the

penis, scrotum and groins, which were vividly red and moist. The axillæ were also affected and there was a good deal about the face. In the groins the irritation was excessive, affected, no doubt, by the patient having hernia and being compelled to wear a truss. Thuja 30, and afterwards sulphur 30 at bedtime, were given, and nux. v. 30 in the morning. On February 3, 1905, the condition was as follows:—Left eye swollen up; light very painful. Eczema on face, axillæ, groins, penis, scrotum. Itching very great on hairy parts. Without discontinuing the morning dose of nux. v., which he had been taking some time, I stopped the sulphur and gave a single dose of rad. bro. 30.

March 6.—Better. Irritation decidedly better. Axillæ clear. Scrotum very much better. Slight eczema in moustache. The back has come out in a crop of acne, which is spreading partly over the chest. He feels more fit. Freer from headaches. *Not repeated.*

April 3.—Eczema got very much better. Then, fourteen days ago, boils came again. Headaches lately troublesome. Bowels act daily. Anus irritable; a little external pile. Eczema rather vivid where truss presses. Scrotum not bad. Chest and back spotty. Repeat rad. bro. one dose.

May 12, 1905.—Eczema decidedly better. Penis and scrotum nearly well. No hay fever. Right eyelid feels heavy and right eye hurts if he reads at night *Repeat.*

July 12.—Scrotum all right. Very much better altogether. Very little hay fever.

In this case and the next the skin trouble was most severe about the generative organs. The fact that in prover No. I. the first manifestation appeared in this region gave one point of similarity—*locality*. And although in the prover there was no irritation in this part, there was very great irritation elsewhere, and this gave a second point of similarity. It is quite practicable to combine the qualities of separate symptoms in searching for a simile.

Case 7.—Eczema Scroti.

Mr. M. T., aged 28, had had syphilis seven years before, and had still some faint symptoms of it about him. But he was more psoric than syphilitic, though in general health strong and robust. This patient was also a hay-fever subject. One of his chronic ailments was a serpiginous eczema of the scrotum, which scaled at times, and at times got moist and oozing; it involved the penis to a slight extent, and was attended with a good deal of itching.

May 5, 1904.—Scrotum, which has been better under primula obconica for some weeks, is again sore. R.—Rad. bro. 30, 24 numbered powders numbers 1, 11 and 17, medicated with 6 globules of the remedy.

May 30.—In a week the scrotum began to improve and got practically well; to-day it has started again a little.

After this primula obconica was given; then psorinum in view of hay-fever. During the latter part of the time the scrotum got worse, and on July 25 rad. bro. was repeated in a single dose, and again on August 26 and September 4. The scrotum kept well till the latter part of the time, and then other remedies were given. On December 1 rad. bro. was again given, but without good result. On the 1st October following it again did good for a time. In this case the relief was only temporary.

Case 8.—Eczema preputialis.

Mr. J. C., aged 43, had eczema of the inner surface of the prepuce and glans and also about the anus, which gave him a good deal of annoyance. I had given him several remedies with some improvement, but not permanent. On October 28, 1907, the itching was giving a good deal of trouble, and I prescribed rad. bro., repeating it at intervals of ten days or so.

November 25, 1907.—Much better; penis better; anus nearly normal. A fortnight after receiving rad. bro. had an irritable patch on the right foot, which disappeared later. *Repeat.*

Case 9.—Eczema perinaei.

On March 6 last Mrs. N., aged 54, consulted me for piles, which she had had about a year, and constipation, which she had had several years. But her biggest trouble was an intolerable irritation about the anus, spreading for a considerable distance, round which was an angry area of eczema, which had been present three months. As the patient had been vaccinated four years previously, and as the vaccination "took tremendously," I put her on thuja 30 to start with. Under this all symptoms became worse, and graphites 6 given later did not improve matters.

April 4.—Bowels acting better, but irritation very bad; skin feels very dry as if baked. Irritation comes suddenly; is just as bad when the attacks are on, but is freer in the intervals. Rad. bro. 30, numbers 1 and 17, in 36 powders, one night and morning as numbered.

April 22.—Repeat. Rather better; no more medicine.

May 2.—Anus looks very much better. Patient had been

constipated for two or three days, and had to use glycerine suppositories. Irritation better after that. Æscul. hip. 30, gtt. v., in wine-glass of water, morning on rising. Rad. bro. 30, numbers 1 and 11 in 24 powders, one at bedtime as numbered.

May 28.—*Anus practically well in appearance*, though at times irritable. Stools normal.

The eczema was cured: it was radium which started the cure and completed it.

CARCINOSIS.

The next two cases are those of a sister and brother, and the worst trouble of each was in the nose—internally and externally. The chief point in the family history was this: Their mother, who belongs to a well-known Jewish family (the father being English), is subject to facial acne of a very aggravated type. Her father died of cancer. Not being under my care, I have had no opportunity of trying radium in her case. The mother's acne I regard as a benign expression of the cancer taint, what I call "carcinosis." The affection in the children I consider of the same nature at another remove.

Case 10.—Erythema of face and nose with nasal catarrh.

Miss P., aged 20, was brought to me on July 3, 1907, complaining of an eruption which she had had on the nose since she was 15, that is to say, when the periods began. She was tall, well-developed, and, but for this disfigurement, a particularly handsome girl. She had had measles and whooping cough in infancy and chicken-pox after she was 15. She was unvaccinated.

The present trouble was this. She had a red shining nose, the redness invading the adjacent parts of the face. The nose burned and itched. It was aggravated by any form of exercise, which caused her nose to bleed and made it painful. In addition to this, there was catarrh with green discharge, filling five handkerchiefs in the day. The redness was worse after meals.

The patient also suffered from painful menstruation. The periods were regular. The pains were referred to the region of the ovaries and the legs. She began to feel pain a week before. She had moist hands and feet. She had had no chilblains for two years and not severely then. She was much worse in cold weather.

I first prescribed *carcinosis* 100. This made no marked

change, though there was less discharge and less bleeding than formerly at the end of a month.

July 23, 1907. R., rad. brom. 30, gl. vi. (single dose).

August 27, 1907. This time she reported a marked change. The nose does not now bleed half as much as it used to do. It bleeds once a week, and this occurs on rising in the morning. This improvement has been observed the last fortnight. Formerly any kind of exercise would cause bleeding; this is not so now. The discharge continues, especially after tennis. Walking does not affect it. There is still itching all over the face, including the nose. Repeat.

September 26, 1907. Very much better. *Bleeding entirely stopped.* Appearance better, but gets very blue when the weather is cold. Has had much pain at the period, and the pain is worse then. Repeat; also *caulophyllum* 3, every hour at the period when there is pain.

October 24, 1907. Decidedly better. Catarrh entirely ceased. Bleeding only occurs if the weather is intensely cold and she is out in it. The redness of the nose improves as the day advances. *Caulophyllum* shortened the pain of the period. Repeat.

She was kept on the remedy till December 3, when this note was made: Nose feeling much better. It is much less red and so is the face! There is no burning now; it only itches in the cold.

Case 11.—*Painful Nasal Catarrh.*

A. P., aged 19, in a military college. Came to me June 15, 1907, complaining of trouble with his nose. He was very tall and stoutly made, considerably over 6 ft. in height, dark, rather heavy of features. He had suffered from impetigo till he was 14. He has very moist feet. In summer the feet sweat profusely and are extremely unpleasant. Is rather morbid; dreams much and talks in sleep. Not vaccinated. Is constantly getting colds in his head. His nose is sore and cakes up. Has a burning sensation. When he plays games the nose swells. I found the nose was in a state of chronic catarrh; the throat was red and granular. He always has a sore throat and the feeling of a lump in it.

I first prescribed cadmium sulph., and on this he made considerable improvement, so I continued it till August 24. After this I did not see him till October 12, and then the condition was as follows:—

Nose gets very puffed at times, though there is not so much

discharge. The mucous membrane of the throat is very dark, congested, and swollen. The aperture of the nostrils was narrowed by congestion. R., rad. brom. 30, one dose.

I did not see the patient again till December 19. Was much better after the last medicine and kept better till a week before—that is to say, for nine weeks. Feet much better; do not sweat now. Repeat.

I have seen this patient recently, and his only trouble now is excessive sebaceous secretion of the skin of the nose. The throat is much better.

These two cases bring me to another case which further develops the relation of radium to cancer. We have seen in the proving No. I., and in one of Dr. Parkhurst's cases, that superficial nævi—so-called canceroderm—have disappeared under the drug's action. No doubt millions of people have these little nævi who never develop, and never will develop, cancer. All the same, I nevertheless regard this as one point of indication of the tendency, and more especially when they are numerous. Therefore I regard their presence as one among many indications for the cancer nosodes. The fact that radium has removed them proves to my thinking a certain relation of radium to the cancer diathesis, and their presence in any case forms one indication for the exhibition of radium.

In the two last cases mentioned, and in the one now to be described, these were not noticed, but the symptoms of carcinosis were sufficient without them. Moreover, they were all young subjects, and canceroderms do not usually appear till middle life.

Case 12.

Lieutenant H., aged 27, of the Indian Army, was invalided home early in 1907 for what was supposed to be appendicitis.

He had been perfectly well up to November, 1906. He had a splendid family history. Had been vaccinated twice, the last time in 1903, when it "took." He was inoculated for typhoid in 1900. On April 21, 1907, he was operated on by Mr. Watson Cheyne, who found a sarcomatous tumour which could not be removed. Mr. Cheyne performed enterostomy, making a new passage for the fæces, and thereby prolonging the patient's life.

The physician who attended the case with Mr. Cheyne kindly gave me the following details on October 2, 1907 :—

“ Mr. H. came from India with an abdominal tumour, for which Mr. Watson Cheyne operated. The condition seems to be a sarcoma growing from the wall of the small intestine, and with an extensive glandular affection. A short circuit was made between the small intestine and the transverse colon. This has acted quite well, and there has been but little gastro-intestinal disturbance. He has slight flatulence, and occasionally passes a small amount of blood *per rectum*.

“ The tumour varies, but is considerably larger than it was at first. He has had injections of Coley's fluid *m.xv.* twice a week, and this has definitely retarded the progress of the growth. He has, however, become more and more cachectic, especially during the last few weeks.”

When I first heard of the patient he was living at Richmond, and was under the care of local medical men. As they had told the patient's father that there was no hope for him, he called on me to ask if I thought homœopathy could do anything. I said I thought that was very possible, but I should like to see the patient before saying anything definite. In the end he was brought to London and put under my care.

When I first saw Mr. H. I received a shock—I did not expect to find things so far advanced. He was dreadfully emaciated and cachectic, as described in the letter quoted above. But I, nevertheless, took him in hand, and under *ornithogalum* ϕ in unit doses, and later *natrum cacodylate* in $\frac{1}{4}$ gr. doses three times a day, he held his own. Then came an attack of Indian fever, which *ipecac.* 30 successfully dealt with. Before coming under my care he had been under the influence of *tinct. opii.*, and I did not cut this off altogether, but very small doses sufficed to relieve pain when present.

I now come to the radium episode of the case, and though it is only an episode I think it worth mentioning because there is some corroboration of it from another quarter.

On October 8 it was noted that he had had much pain in the body, so a dose of *ornith.* was given.

October 15. Has been feeling weaker daily. To-day, after a two hours' sleep, he had violent pain. Was unable to take any lunch. *Diarrhœa* set in and he passed much blood. Very depressed this week. *R. rad. brom.* 6, globules *iv.* in powder, twenty-four of these, one every four hours.

October 17. Has had some bleeding at stool this morning, but not much. Pain not nearly so acute. Repeat.

October 21. No more bleeding.

This patient recently passed away—over five months after I took him in hand.

He developed intolerance of the cacodylate, and at the desire of his friends and with my concurrence he was put on violet leaf treatment, but a very severe diarrhœa developed, which was with great difficulty controlled. In fact it never was completely controlled till the end. Either with the stool, or separately from it, was purulent discharge, and at times clots.

On January 10 there was an extra amount of pain, and clots passed with discharge. Rad. brom. 6 was given in single dose. After this there was less pain and no clots. In February the diarrhœa continued uncontrolled. I followed the radium with rhus ven. 3x every two hours, and for the first time for many weeks the diarrhœa stopped, showing, as I thought, a complementary action on the part of rhus ven. and radium. The improvement unfortunately proved only temporary and the inevitable happened.

I mention this case because I saw in the *Homœopathic Recorder* of June, 1907, a note to this effect: "Dr. Pixley, of Pittsfield, Massachusetts, says that radium 6x trit. has a strong action on cancer, especially on bleeding cancer; it dries it up and alleviates the pain."

I think this is very likely, and the steady cure of nose-bleeding in the young lady with the cancerous family history gives further support to this. The question of which is the best potency to use is an important one, which only experience can decide. This is the only case in which I have used radium in any other than the 30th potency.

In reference to the three last cases there are one or two practical remarks which I should like to make. If the mother of the first two could have been treated throughout her pregnancies for the cancerous diathesis which she undoubtedly inherited—treated, I mean, more especially with cancer nosodes and other remedies like radium which are related to cancer, in all likelihood the children would have escaped the trouble for which I treated them, just as children do escape when syphilitic mothers are treated specifically during their pregnancies.

The other point is of a different kind. Why did Mr. H.

contract cancer. I cannot trace the smallest sign of heredity in his case. I have seen in several cases cancer develop after ordinary blood-poisoning (from sewer gas, for example). Dr. Robert T. Cooper maintained that this was a common cause of cancer. Was there anything of that kind in this case? The only thing that I could discover was the anti-typhoid inoculation. I merely throw this out as a suggestion, and whether it be the fact or not it was the chief seat of action of the typhoid poison that the disease attacked.

Cures of cancer with radium rays were early reported. In July, 1903, Gussenbauer, of Vienna, reported a cure of a case of cancer of palate and lips in a man aged 61, who had been previously operated on and finally given up as incurable.

In 1905 Max Einhorn, of New York, reported satisfactory results of treating œsophageal cancer by means of radium contained in a hard rubber capsule and allowed to remain in contact with the stricture for half an hour or an hour.

In the *Homœopathic World* of July, 1906, an important note quoted from the Paris correspondent of the *British Medical Journal* is of interest in this connection. The writer says: "It had been hoped that medicine would be able to take a signal revenge in another field. The radio-therapeutic treatment of cancerous affections at first seemed full of promise. We all know those little epitheliomas which the people, in their figurative language, call "graveyard flowers," because they are generally seen on the faces of those who are nearing the end of life. A characteristic of these little tumours is to resent all familiarities, more particularly those of a surgical nature. More delicate in their action, the X-rays sometimes favourably influence these growths, and we see some disappear as by miracle after five or six carefully regulated applications. Alas! evil is always close to good, and now our enthusiasm for the new method must suffer abatement. The treatment is not always free from danger, and at a recent meeting of the Société de Dermatologie various speakers stated that,

together with instances of cure, they had seen the lymphatic glands corresponding to the region treated attacked by the disease. What, then, is to be done? If the disease is left to itself the patient dies of cachexia. If not, he dies of the treatment. The only conclusion that seems warranted is that we must do our best to avoid epithelioma."

There is another possibility which does not seem to have occurred to this writer, namely, to give the remedy in a different way, by the internal method in infinitesimal doses, and this is the more important since he does not tell us how epithelioma may be avoided. The observation of the evil and the good going hand in hand is of particular interest to homœopaths who know how to avoid the evil and choose the good. If X-rays and radium rays could not stir up cancer they could not cure it.

SCHEMA.

SYMBOLS USED.

In the subjoined schema every symptom is referred to the proving in which it occurred by a number appended to it. The sign (°) means that the observation is from an experiment; (°) means that the symptom is a cured one.

CLINICAL USES OF RADIUM.

Acne; cancer; eczema; constipation; corns; epistaxis; erythema; hæmorrhage; hæmorrhagic cancer; nævi; neurasthenia; nose, affections of, catarrh of, redness of; prurigo; psoriasis; skin affections generally; trachoma; ulcers.

RELATIONSHIPS OF THE REMEDY.

Radium bromide is controlled by *rhus ven.* It is followed well by *rhus ven.*, *sepia* and *calcareæ*. It compares with *calcareæ* in < by wetting, and with carbon in < by shaving. In *pruritus ani* with blue light.

Symptoms move from right to left (eyes). Symptoms of ears and chest alternate with symptoms of stomach.

SCHEMATIC ARRANGEMENT OF SYMPTOMS.

MIND.—From being torpid and apathetic became cheerful (cancer of uterus treated locally with radium).

HEAD.—Headache in occiput in morning; a tight feeling, worse on motion; lasted some days (2. — 2nd d.).—Much headache (3. — 3rd d.).

EYES.—Eyes smart and look red (noticed by others). Passed off and reappeared with greater intensity later. Disappeared entirely in three weeks (1. — 28th d.).—Some secretion on lashes of right eye on waking (4. — 3rd d.).—Right eye began to feel sore with occasional sticking pains and increased secretion; symptoms continued through the week, worse on reading, worse with artificial light, better on closing eyes; sclerotic vessels injected, running to cornu from both sides; occasional itching of lids, worse upper (4. — 4th d.). — Report by Dr. Macnish: "Blenorrhagia of right eye; injection of sclerotic and slight injection of lower part of cornea; slight infiltration of lower part of cornea; eye looks watery; tension same in right as in left eye; pupil of right dilates less actively than left and contracts more sluggishly" (4.— 5th d.).—Woke with right eye very painful with feeling as if foreign body in it, better after going out into the air; rest of day felt it very little (4.—10th d.).—Right eye much better; left eye has had sensation as if a loose eyelash were in it on several occasions, not very painful, slight soreness of ball of left eye; a few congested vessels run over the sclerotic to cornea in left eye (4.—11th d.).—°Trachoma.

EARS.—Earache right ear (2.—34th d.).—Much pain in ear, stitching and throbbing. The ear was syringed and much wax was removed from both; the ears continued to give trouble for some hours after this, and there was deafness off and on (2.—41st d.).—Indigestion and stuffed-up feeling alternating with headache (2.—41st d.).—Throat sore, ear aching; feels as if bruised inside (2.—53rd d.).

NOSE.—Much mucus in nose without having taken cold (1.—14th d.).—Pricking and peppery sensation in left nostril

in evening (3.—2nd d.).—°Small nævus-like spot on end of nose which had been increasing some time disappeared (case of uterine cancer treated locally).—°Catarrh with green discharge.—°Epistaxis.—°Burning sensation in nose.

FACE.—Skin of face very irritable; this gradually got worse and lasted over two months; the skin became thickened and broke in places when scratched (which gave the patient relief) exuded a clear moisture; aggravated by washing (which caused oozing); aggravated by shaving (only possible on alternate days); better by bathing in very hot water; worse at night when warm in bed; it prevented sleep, and a handkerchief had to be kept applied to absorb the exudation; though scratching relieved the intense itching it was followed by burning and stinging with oozing (rhys v. cured) (1.—45th d.).—Small nævus on chin turns black, scales off and disappears (1.—88th d.).—Skin of face very dry (2.—34th d.).—Slight patchy erythema diffused over forehead (4.—5th d.).—Serpiginous ulcer on chin (5.—18th d.).—°An old acne rosacea about the nose and face (cured in two cases with radium water). °Erythema of nose and face.

MOUTH.—Tongue very sore right side, about the middle (1.—16th d.).—Mouth dry in morning (2.—2nd d.).—Tongue white (2.—3rd d.).

THROAT.—Throat sore, ear aching (2.—55th d.).

APPETITE.—No appetite for lunch (2.—3rd d.).—Aversion to meat; this lasted many months (2.—3rd d.).—Cannot eat bacon for breakfast (2.—4th d.).—Unable to smoke (2.—22nd d. This lasted till 46th day of proving; on 86th day prover received rhys ven. and two days later was able to eat bacon for breakfast).—Off appetite, especially for meat (3.—8th d.).—°Appetite increased and sense of taste returned. (Radium water.)

STOMACH.—Nausea (2.—4th d.).

ABDOMEN.—Inflammation of umbilicus (1)—Stuffed out feeling after food (2.—22nd d.).—Indigestion and stuffed feeling, alternating with earache or pain in the chest; (2)—Serpiginous ulcer on groin (5.—18th d.). °Hæmorrhage from bowels in case of sarcoma of intestines.

STOOL AND ANUS.—Stools paler than normal and more frequent (1.—14th d.).—Stools very relaxed, in loose bits, partly almost watery, darker in colour; sometimes tags of mucus; did not become normal till ten weeks later (1.—16th d.).—Bowels confined (2.—23rd day).—Tendency to piles the last three weeks (2.—34th d.).—°Bowels act naturally from the first (cancer case treated locally; previously constipated and under opiates).—°From being constipated bowels became regular (radium water).—°Intense eczema around anus and extending to vulva, with great irritation (rad. brom. 30).—°Bloody stools; clots in the motions (in case of cancer of intestines).

MALE GENERATIVE ORGANS.—Eruption of psoriasis on penis, with circular or serpiginous edges. (1.—4th day).—°Eczema, moist, of penis, scrotum, groins and anus cured (rad. brom. 30).—°Serpiginous eczema in syphilitic and psoric subject relieved for a time.—°Eczema of skin and inner surface of prepuce with irritation; eczema about anus.

FEMALE GENERATIVE ORGANS.—Period delayed (2.—34th d.).—Period a week late, but not otherwise abnormal (2.—41st d.).—Period rather less painful than usual (2.—88th d.).

RESPIRATION.—Feels as if she could not get air enough (2.—3rd d.).

LARYNX AND TRACHEA.—°Catarrhal conditions of the larynx improved. (Radium water.)

CHEST.—Chest feels tight as if she could not get air enough (2.—3rd d.).—An eruption has disappeared from the chest during the proving (2.—34th d.).—Pain in the chest alternates with indigestion and stuffed-up feeling.

BACK.—Pain under left scapula; increased on moving, increased by putting shoulder back, diminished after rising (1.—52nd d.).

UPPER LIMBS.—Hands cold (2.—3rd d.).—Serpiginous ulcer on hand (5).

LOWER LIMBS.—A callosity or corn on inner border of right foot, which has been there twenty years, was found to be almost gone; it disappeared completely soon after (1.—16th d.).—°A corn fell off the right foot.

SLEEP.—Sleeps regularly without any opiate (cancer case treated locally).

FEVER.—Shivering, bilious feeling, lasting three days (1.—11th d.).

GENERALITIES.—Indigestion and stuffed up feeling alternate with earache or pain in the chest (2.—41st d.).—Looked ill nearly all the time of the proving; lost 3½ lb. in weight (2).—Feels very seedy as if going to be ill; as if could hardly crawl about (2.—55th d.).—Some general malaise (4.—4th d.).—°Relieved pains of cancer and enabled to sleep; removed jaundice and dropsy; restored life and cheerfulness from a state of apathy and collapse in same case. (Action of rays).—°Feels more fit.

Central nervous system (especially in young animals) very sensitive to radium; animals die of paralysis.^x—Red corpuscles lose their hæmoglobin.^x—Plant growth and development checked.^x—Protozoa first stimulated, then die.^x—Regeneration retarded.^x—Development retarded.^x—Ferments lose their power.^x

SKIN.—Eruption of psoriasis on penis with circular or serpiginous edges. (1.—4th d.).—Skin of face very irritable; this gradually got worse; the skin became thickened and broke in places, and when scratched (which gave great relief) exuded a clear moisture; worse on washing (which caused oozing); worse by shaving (only possible alternate days); relieved by bathing in very hot water; worse at night when warm in bed, preventing sleep; scratching, though it relieved, caused burning and stinging (1.—45th d.).—Small nævus on chin turns black and falls off (1.—88th d.).—Skin of face very dry (2.—34th d.).—An eruption, which she had on the chest before taking radium, has disappeared (2.—34th d.).—Slight patchy erythema diffused on forehead (4.—5th d.).—Intense erythema which leaves a brownish pigmentation, unless ulceration follows (Roux).—In four days after exposure a red patch appeared, which became larger and increased until on 14th day there appeared a necrotic ulcer which spread in a serpiginous form. Later four other smaller ulcers appeared on the chin, on the hand, and one in the groin affecting the tissues down

to the corium. These lesions broke down in a superficial sloughing ulcer, which increased for several days, and then retrograded and gradually healed, the distant lesions healing first. After three weeks the first ulcer on the arm was an atonic ulcer in process of repair. From first to last no pain, swelling, heat or fever. The ulcer was cold, necrotic and torpid (5).—°Two cases of acne rosacea of face (radium water).—°Two corns dropped off right foot.—°Eczema of scrotum and penis and axilla cured.—°Prurigo worse at night (two cases).

AGGRAVATIONS.—Shaving; washing; warmth of bed (skin). Motion (headache).—Worse by reading; artificial light (eyes).

TIME.—Worse at night.

AMELIORATIONS.—Bathing in very hot water.—Scratching.—Closing eyes (eyes).—Open air (eyes).

Dr. CRONIN asked if there were any other indications than that of the case of the foot, which Dr. Clarke had mentioned, of radium being a right-sided remedy.

Dr. JAGIELSKI said Dr. Clarke was such an excellent pioneer in all the newer remedies, treating the subject with so much distinction and experience, that every moment during which he had been speaking of the results of radium treatment was full of interest. As far as he (Dr. Jagielski) could judge from the cases Dr. Clarke had brought forward, he thought radium concentrated its particular action upon the circulation and the blood itself; and the metabolic changes which radium produced were reflected in the provings. Its action was shown upon the skin and also in the internal organs of the body, and for these reasons radium was of the greatest value in acne rosacea, piles, eczema, itching, and all other skin troubles.

Dr. WYNNE THOMAS said he had had an experience of radium in connection with a patient, an old lady, aged 83. He used to see her frequently in the early part of 1905, when she was suffering from a very troublesome cough which she had had for some weeks. He examined the throat and found a small nodule on the right tonsil, at the junction of the tonsil and soft palate. He was rather suspicious of it, although the patient had enjoyed the best of health all her life; there was absolutely no history of cancer in the family. Mr. Dudley Wright agreed with him (Dr.

Thomas), that the nodule was of a malignant nature. There was no question of an operation on account of the time of life. The swelling increased in size, and Mr. Dudley Wright expressed the opinion that radium ought to be of benefit. He (Dr. Thomas) therefore went to Armbrecht's to see if he could get some radium. He was met by the remark that radium was very scarce and that he could not be supplied with any, but he was shown a little stick on which there was a slight coating of radium, for which he was charged ten guineas. He expressed a doubt whether the coating on the stick contained radium, but he was assured that it did. As evidence the stick was brought to within about a yard of an electroscope, and immediately the wings diverted. At first he did not know how often to use the remedy on the patient—not very much was known about it by anybody at that time. However, he applied it for five minutes every other day for a month. He then increased the time to ten minutes every other day. The throat, instead of improving, gradually became worse, the swelling becoming enlarged and ulcerating. He then obtained some fresh radium from Beck's—10 mgrm. of bromide of radium, which he was told was the highest activity which could be got. He might mention, as showing that this specimen was pretty active, that it illuminated a fluorescent screen in a dark room, which the radium he purchased in the first place would not do. The 10 mgrm. of bromide of radium was contained in a little brass cup covered by a very thin piece of aluminium. He had a little handle made to which he screwed the little cup on the end, and by this means applied it to the throat. The application was made twice a week for five minutes to start with, then every other day, and gradually increased the time to ten minutes. The patient gradually got worse, developing the usual cancerous cachexia, and she finally died about twelve months after the swelling first appeared. The wonder was that she could swallow at all, as the swelling filled up the back of the pharynx. To her last day the patient never had any pain. Although able to take her food, she only weighed about 7 st. when she died, her original weight being 14 st. He certainly thought that the radium prevented the patient from suffering pain, but it did not seem to have the slightest effect upon the growth.

Dr. CLARKE asked Dr. Thomas if he thought the radium hastened the increase of the swelling.

Dr. THOMAS said he did not think so.

Dr. COOPER added his thanks for Dr. Clarke's valuable observa-

tions on the subject of radium. He had himself only used the remedy in one or two cases. One case which he thought might be of interest, in which he administered a single dose of radium bromide 30, was that of a lady, aged 49, suffering from psoriasis, affecting the arms, right thigh, waist and knees. The spots were red and inflamed, and actual pain was felt in them. The irritation was very noticeable, being worse after 5 p.m. and in the early part of the night. The dose had a thoroughly soothing effect on the whole condition, both inflammation and irritation being lessened. One or two peculiar symptoms were noticed after the dose had been taken, for example, on the fourth day the left eyelid became inflamed at the outer corner, this being of special interest in view of Dr. Stonham's proving on himself. Also, just prior to that, some blisters appeared on the dorsal aspect of the first three fingers of the left hand just above the nails. Neither of these symptoms had been present before the dose was given, nor had they appeared since. Unfortunately he did not continue the radium treatment, as other remedies seemed more specifically indicated, but it undoubtedly helped towards the ultimate relief of the condition.

Dr. STONHAM remarked that after his proving on himself his attention was naturally directed to the effect of radium on the eyes, and he noticed one or two cases of conjunctivitis get better under treatment by it, but they were mild cases and might have got well under any kind of treatment. He should like to see radium used in trachoma, because if it was proved to be useful in that connection homœopaths would gain a remedy which would be of the greatest service.

Dr. BURFORD remarked that when he saw the title of the paper it suggested to his mind the question, Was radium to be rehabilitated? Was this drug to be of any material value in the treatment of disease, or was it, like many of the cures for cancer, to die a death at the kindly hands of medical science? According to several authorities who wrote in the journals, the promise of the beneficial effects of radium had scarcely been confirmed by its achievements. It had been brought into the world under the ægis of great names and with a splendidly drawn future, a future which, due to the scientific imagination, medical men could revel in, but as time went on the new remedy could scarcely live up to such a reputation, and the end came all too soon. Dr. Clarke entered a new field, and so far as homœopaths were concerned an untilled field, when he dealt with radium homœopathised—prepared according to homœopathic

methods; and although one swallow did not make a summer, and one paper did not make a revolution in the scope of prescribing radium, the facts which Dr. Clarke had brought forward, both from his own armoury and the experience of others, were such as to give homœopaths much material for reflection. One thing which had been brought out more clearly than any other was, that radium was a remedy which acted on the superficies of the body; no deep visceral action of any consequence had been recorded, excepting the one of the Indian officer who had had his intestinal bleeding arrested. He had had some little experience with radium himself, in the form of dilution 30, in pruritus vulvæ of women. The first case in which he tried it—the wife of a clergyman—it proved a signal success; but, as he had said, one swallow did not make a summer, and the second case in which he tried it—a distinguished lady whom he was very anxious to cure—the treatment absolutely and entirely failed, for the reason, no doubt, that the latter was not a radium case. He (Dr. Burford) thought that the physio-dynamics of radium should be left out of consideration altogether. They were considering that evening mainly the pharmaco-dynamics of radium, and there were one or two points which particularly struck him. He found no reason why Dr. Clarke should always use the 30 dilution; no doubt he had a leaning towards 30 because there was so little radium to be obtained—one might have to use dilution 30 whether one wanted to or not. Dr. Clarke very properly began with a medium value and diluted up to 30, thereby being quite sure that he had a marketable article. At Dr. Rutherford's lecture at the Royal Institution some weeks ago, the first thing which came clearly out was that radium contained seven other and distinct constituents besides itself, each having different qualities and each a different length of life. Radium X had a life of only a few hours; radium A had a life of three or four days; radium D had a life of forty-six years; radiums E and F did not live quite so long, and all those different products happened to be called radium because they were of the same mother. They all had different electric reactions, different lengths of life, and, doubtless, different therapeutic influences. Dr. Rutherford was also very clear about the fact that the parent of radium was uranium, and the ultimate product to which radium was reduced was lead. Helium was another constituent of radium, which had an entirely different action; that was an eighth product. It would be a very good thing if someone could continue the provings, not only in the 30 dilution, but in a lower dilution, in order that

homœopaths might be able to disentangle as clearly as possible the gross action of radium. There was great similarity between the cases where radium acted on the superficies, on the skin and on the mucous membranes; but there was no doubt that it was far safer to use it in homœopathic forms than in the massive dose of crude application.

Dr. VINCENT GREEN thought the Society had to congratulate themselves on the new addition to the homœopathic *materia medica*. He had been specially interested in the case referred to by Dr. Clarke of Miss P., a case of acne rosacea associated with a very profuse purulent discharge from the nose. Acne rosacea was not uncommonly associated with nasal cases where there was a free discharge of pus, and, in a general way, he thought acne rosacea was usually associated with some form of acute intoxication, and he could not see that a shred of evidence had been adduced in favour of the novel suggestion that it was a pre-cancerous condition. A point of interest was that the discharge in the case of Miss P. was materially lessened by the use of radium. There was no doubt that in a case with such profuse suppuration—Dr. Clarke had said the patient used five pocket handkerchiefs a day—there would undoubtedly be ulceration of the nasal mucosa either in connection with the sinuses or of the meati, and he should think that the radium helped the case by relieving or curing the ulceration, which was in accord with what might have been expected from the provings.

Dr. HEY said Dr. Clarke seemed to regard radium as a right-sided remedy more than a left-sided one; but it had struck him that it had very marked left-sided indications. In Dr. Stonham's case, for example, it was the left eye which was most affected.

Dr. CLARKE said it began with the right and went to the left.

Dr. HEY, continuing, said, in one of the cases mentioned of skin irritation, the irritation was on the left side, and Dr. Cooper had also said that the symptoms in his case were mostly on the left side. With regard to doses, Dr. Clarke began his provings by giving a unit dose of radium 30, but in the treatment of one of his cases he gave twenty-one powders of radium 30, directing one to be given every three days, and he thought in the case of the lieutenant from India Dr. Clarke gave a dose every four hours; in other cases the dose was given at intervals of a month or more. He asked Dr. Clarke why that was done, and if he had arrived at any method or any reason for varying the rapidity of the dosage, and why he gave in one particular case a dose every four hours. He also asked if he had tried the

treatment at all in such extensive skin diseases as generalised psoriasis and exfoliative dermatitis. They were conditions which very often gave a very great deal of trouble and which took a very long time to get better by the ordinary methods of treatment. There was a patient attending the hospital who suffered from many of the symptoms which Dr. Clarke had described, among others epigastric pain, constipation and acne rosacea. He should like to give her radium 30, and he wished the author to give some idea how often he should give it.

Dr. CLARKE, in reply, thanked the members for their very kind remarks. He thought he had introduced into the *materia medica* family a "viable" child, and he hoped that the homœopathic fraternity would nurse it and feed it with new provings and new tests therapeutically, so that in the future radium would take its proper place in the homœopathic *materia medica*. Dr. Cronin had asked what indications there were for the remedy's right-sidedness. Radium acted on both sides, but it acted on the right side more predominantly, as shown by the provings and the cases. Some symptoms went from right to left, and in that respect it was similar to lycopodium. In the case he had brought forward it took the corns off the right foot and did not touch the corns on the left foot, and, again, in that it was like ferrum picricum, which had cured corns on the right foot but not on the left. He was glad to find that Drs. Cooper and Stonham had had corroborative evidence of the internal action of radium. The trouble about remedies brought forward by allopaths was that they were brought forward as remedies for some disease—radium was expected to cure all cases of cancer, for instance—and if the remedy did not cure that it was deemed to be a failure. There was no remedy for cancer—or, rather, everything might be a remedy; but what one had to find were the indications for its use in cancer; that was what had to be looked for, and it was found first and foremost through provings, and secondly through clinical experience. One of the most important discoveries he had made in his proving was that *rhhus venenata* was the antidote to radium. He selected *rhhus venenata* because it was the wickedest of all the rhoes; he had no doubt that *rhhus radicans* and *rhhus toxicodendron* would be antidotal also, but *rhhus venenata* had served him well, and that was the reason why he mentioned it as the foremost remedy for radium effects. It was exceedingly necessary to have an antidote in order to be able to put the brake on a proving whenever it was desired or when the radium was not doing what one wanted it

to do in a case, or else was doing something on its own account. Another point about *rhus venenata* was that it followed excellently on radium; in a case where radium had begun the work, *rhus venenata* would very likely follow on and complete the cure. In radium, he had no doubt, homœopaths had a great cancer remedy, and the provings and the clinical experience together gave them the key for the cases in which it should be used. Dr. Hey had asked the question why he repeated the dose in a certain case every four hours. The condition was an acute one, and he had his antidote ready to put in any minute if it was necessary; he should not have thought of doing it unless he had had an antidote. Dr. Hey had also asked about psoriasis and exfoliative dermatitis. He could not say that he had had cases of that kind to treat since he had developed radium into a living entity, but no doubt cases of that kind were such as would come under the action of radium. He had had a case of dyshydrosis of the hands in which he gave radium, but it did not have any effect; but he followed it up with *rhus venenata*, and that did a great deal for the patient. He passed the case into Dr. Stoham's hands afterwards; it was rather a tedious one, but he thought *rhus venenata* did most for the patient; he thought, however, that radium prepared the way. Dr. Hey had asked him if he should prescribe radium for the case he (Dr. Hey) had referred to. He gathered from Dr. Hey that it was not a case of very acute symptoms, and he advised him to administer one dose and see the effect. He had had a neurasthenic patient come to him that day, whom he had previously seen a month before. She had constipation and irritation about the anus and neurasthenic symptoms generally. She was much better. He had given her three doses in the month. All the symptoms were much better. Numbers 1, 11 and 17 were medicated in twenty-four powders. He was much obliged to Dr. Burford for his remarks, and if he lived long enough perhaps he might analyse those eight constituents of radium by proving them, and read eight more papers on them before the Society!

MINUTES OF THE SOCIETY MEETINGS.

THE FOURTH MEETING of the Society for the Session 1907-8 was held at the London Homœopathic Hospital on Thursday, January 2, 1908, at eight o'clock, Dr. A. Spiers Alexander (President) in the chair. The following Fellows and members were also present: Dr. Blackley, Dr. Burford, Dr. Clarke, Dr. Cooper, Dr. Roberson Day, Dr. Deek, sen., Dr. Eadie, Dr. Epps, Dr. Goldsbrough, Dr. Granville Hey, Dr. Macnish, Dr. Byres Moir, Dr. F. Nankivell, Dr. E. A. Neatby, Dr. W. Roche, Dr. Stonham, Dr. Wynne-Thomas, Dr. F. A. Watkins, Mr. Dudley Wright. An apology for absence was read from Dr. Johnstone.

NEW MEMBER.

John William Hobart Barlee, M.D.Lyons, L.S.A.Lond., of Edinburgh, was elected a member of the Society.

VISITOR.

Dr. Gustav Sirsch, of Vienna, was introduced as a visitor.

SECTION OF MATERIA MEDICA AND THERAPEUTICS.

Under the auspices of the above Section a paper was read by Dr. R. M. Le Hunte Cooper, entitled "Curative Force and its Scientific Induction." This paper, with the discussion which followed, appears on pp. 169 and 189 of this issue of the JOURNAL.

The FIFTH MEETING of the Session 1907-8 was held on Thursday, February 6, 1908, at 8 o'clock, Dr. A. Spiers Alexander (President) in the chair. Dr. C. Osmond Bodman, Dr. Dyce Brown, Dr. Spencer Cox, Dr. Roberson Day, Dr. Goldsbrough, Dr. Granville Hey, Dr. Reed Hill, Dr. Jagielski, Dr. Johnstone, Dr. Byres Moir, Dr. Neatby, Dr. William Roche, Dr. Stonham, Mr. Knox Shaw, Dr. Wynne Thomas and Mr. Wilkinson were also present.

NEW MEMBER.

William Percy Purdom, M.R.C.S., L.R.C.P.Lond., of the London Homœopathic Hospital, was elected and introduced as a member of the Society.

VISITORS.

Dr. Gustav Sirsch and Mr. R. Bodman were introduced as visitors.

SECTION OF SURGERY AND GYNÆCOLOGY.

A paper was read by Dr. James Johnstone, M.B., F.R.C.S. Eng., entitled "Ascending Infection of Female Genitalia in Relation to Health and Fertility." A discussion followed, in which the President, Dr. Neatby, Dr. Hey, Dr. Moir and Dr. Thomas took part, and Dr. Johnstone replied. This paper with the discussion will appear in the July number of the JOURNAL.

A paper was subsequently read by Dr. W. Spencer Cox and Dr. Burford of London, entitled, "On a Case of Congenital Absence of the Vagina with defective development of the Internal Reproductive Organs, Hæmatosalpinx and secondary Pyosalpinx, with a Note on the advantages of Transfusion." The specimen removed was exhibited. A discussion followed, which, with the paper, appears on pp. 201 and 207 of this issue of the JOURNAL.

The SIXTH MEETING of the Session 1907-8 was held on Thursday, March 5, 1908, at 8 o'clock. In the absence of the President, Dr. Byres Moir was voted to the chair. There were also present: Dr. Burford, Dr. Clarke, Dr. Cooper, Dr. Cronin, Dr. Roberson Day, Dr. Vincent Green, Dr. Granville Hey, Dr. Jagielski, Dr. Frank Nankivell, Mr. Pincott, Dr. J. C. Powell, Dr. William Roche, Mr. Knox Shaw, Dr. Stonham, Dr. Wynne Thomas, Dr. Wheeler, and Mr. Dudley Wright. Dr. Gustav Sirsch was a visitor.

SECTION OF MATERIA MEDICA AND THERAPEUTICS.

Under the auspices of this Section Dr. J. H. Clarke, of London, read a paper entitled "Radium as an Internal Remedy exemplified in Cases of Cancer and Diseases of the Skin, with Provinga and Schema." This paper, with the discussion, appears on pp. 210 and 237 of this issue of the JOURNAL.

SUMMARY OF PHARMACODYNAMICS AND THERAPEUTICS.

Extracted from Exchange and other Journals by the Editor, in collaboration with J. Galley Blackley, M.B.

Aconite. *Leading Indications.*—In a form easily to be remembered, Dr. E. B. Nash discusses the leading indications for aconite by comparison with other remedies. He places the former under seven heads: (1) Fear (especially of death), fright, and their effects; (2) anguish and restlessness, with agonising tossing about; (3) pain: tearing, cutting, driving to desperation; (4) numbness with tingling: left side, tongue, lips, spine, &c.; (5) location of symptoms: chiefly heart and respiratory organs; (6) chill, fever and sweat, chiefly synochal fever; (7) modalities; causes: exposure to dry cold air or checked perspiration, fright, operations: *aggravation*, symptoms increased in evening and night, from warmth, covering, and rising: *amelioration*, symptoms diminished in open air, from assurance and encouragement. (*Homœopathic Recorder*, November, 1907, p. 491.)—Ed.

Barium Chloride. *A Proving.*—Dr. Stonham gives an account of a proving of barium chloride conducted on his own person. Besides recording general symptoms special attention was paid to the blood, the circulation, and the urine. One grain of BaCl₂ was taken every morning at 7 a.m., and every evening at 10 p.m., beginning on August 28, 1900, and continued until September 7. Full details of the proving are given, but the following are Dr. Stonham's summaries of the effects produced: (1) *General symptoms*: The influence of the drug was exhibited principally in the lower alimentary tract, especially the rectum; and in the muscles and joints, especially the former, giving a sense of stiffness, weariness, and weakness, similar to what one feels from over-walking or bicycling too far. (2) *The blood*: There was not much alteration in the red corpuscles, but the white corpuscles were increased by two and a half times their normal number. (3) *The circulation*: Some increase was shown in the pulse tension. A difference in frequency of the pulse in the sitting and standing positions, which is normally 12 to 14,

was shown in the proving to be over 20. This in Dr. Stonham's opinion showed that the increased tension was not due to any increased force of the heart beats, but to increased obstruction in the small vessels and capillaries, to which the heart responded with some difficulty. (4) *The urine*: There was a diminution of the chlorides in the period succeeding the proving; the phosphates and sulphates were not much altered, there was very little difference in the amount of urea excreted, but a great increase in the amount of uric acid, reaching as much as 23.17 per cent. during the proving, and 6.1 per cent. during the following ten days. There was at no time any albumin, sugar, or deposit. (*British Homœopathic Review*, February, 1908, p. 88.)—ED.

Calcarea Sulphurica. *Calcium Sulphate*.—Dr. Katherine Klein, of Jersey City, draws attention to calc. sulph. as allied to hepar sulph., only as having a somewhat different sphere of usefulness. It has been found useful where pus has already formed and found vent. The discharge is thick greenish-yellow, often lumpy, and very offensive. Calc. sulph. is not so sensitive to surrounding conditions as hepar. After hepar has ceased to act calc. sulph. will stir up the diseased tissue, promote healing and healthy granulations. It is especially useful in cleansing pus scabs after mechanical injuries, burns, scalds, or in chilblains. (*North American Journal of Homœopathy*, January, 1908, p. 37.)—ED.

Cantharis in Cardiac Disease.—A case recorded by Wallace McGeorge M.D., exhibits the value of cantharis in a somewhat new rôle, although the indication on which the remedy was prescribed is well known. The case was that of a girl, aged 9, who had been suffering from acute rheumatism with endocardial complication, and was doing badly in spite of carefully selected medicines. The following notes indicate the condition; May 26.—Temperature 98.4° F., pulse 132, respiration 64; "will sit up"; feet and ankles swollen, face pallid; mitral regurgitation. May 27.—Symptoms increased; urine examined with negative results; temperature 100.4° F., pulse 120, respiration 56. May 29.—Temperature 99, pulse 120, respiration 56; little sleep; very restless; countenance anxious, distressed; œdema increasing; frequent calls to urinate, but very little urine voided; this was the indication for cantharis, which was given in the 30th dilution. May 30.—Temperature 98.2° F., pulse 118, respiration 44; slept a little and voided more urine. Continue. May 31.—Improvement in many ways; less œdema; wanted to eat, and asked for a

doll. June 1.—Temperature 98, pulse 104, respiration 40; slept well; feels comfortable; 22 oz. of urine voided in twenty-four hours. June 2.—Temperature 98° F., pulse 100, respiration 28, 34 oz. of urine voided; gradual improvement to convalescence from this date. Cantharis 30 was given for five days, afterwards *sac. lac.* With the exception of retaining the mitral regurgitation, the child completely recovered. (*North American Journal of Homœopathy*, December, 1907, p. 678.)—Ed.

Causticum in Facial Paralysis.—Dr. Stonham reports a case of facial paralysis occurring in his own person in which causticum *cm.* (Nash) appeared to have an immediate effect in aiding restoration of function. Several doses were taken on August 26, when the paralysis of the seventh nerve supply was practically complete. In a week a great deal of movement had returned to all the muscles. The medicine was taken for one day again on September 1. On September 7 recovery was complete in all muscles. No other measures were used except systematic and regular voluntary efforts to move the weakened muscles. (*Homœopathic World*, February, 1908, p. 61.)—Ed.

Chimaphila Umbellata. in Prostatic Enlargement and Irritation.—Dr. Maurice W. Turner of Brookline, reports a case of a man, aged 90, suffering from enlarged prostate and urethral irritation, in which *chimaphila* (1,000) proved lastingly beneficial after other remedies had been tried. The following were the symptoms: Micturition two to four times in the hour in the day, less often in the night. Burning and smarting in urethra and neck of bladder after urination. Persistent constipation. Examination revealed a large and tender prostate. Urine pale, turbid, 900 c.c. in twenty-four hours; alkaline, offensive; specific gravity 1016, purulent sediment. Improvement set in after six doses of the medicine, which was not repeated, and the symptoms gradually disappeared. When they returned slightly four months after, the same good effect resulted from a repetition of the remedy. (*New England Medical Gazette*, December, 1907, p. 508.)—Ed.

Hyoscine-Morphine-Cactin Anæsthesia. An Analysis of Forty-Seven Cases.—The following cases were operated on in Dr. B. G. Carleton's ward in the Metropolitan Hospital, New York. The ages range as follows: One 6, twenty-eight between 17 and 30, seventeen between 30 and 50, three over 50, one 70. Three cases had arterio-sclerosis well marked; sixteen had enlarged areas of cardiac dulness, probably due to the fatty

degeneration of chronic alcoholism; one case had aortic insufficiency; two had complicating mitral insufficiency. Two tablets of H.M.C. compound, full strength, were exhibited in each case, with the exception of the boy, who only received one. The best results were obtained when the first tablet was administered two hours before operation and the second one hour. If the administration of chloroform was begun more than one hour before the second tablet, the stage of excitement was apparently not influenced by the latter. No case was completely anaesthetized without the aid of chloroform or ether. The author reporting the analysis is of opinion that complete anaesthesia would have been attained had three tablets been given. Excitement was apparently eliminated in ten cases, markedly diminished in twenty-three, and well marked in nine. The pupillary reflexes were lost in thirty-eight cases, corneal reflex was present in nine. Respiration was heavy and stertorous, and went as low as 6 in one case, 8 in one case, 10 in two, 14 in three, 16 in three, 18 in three, the remaining thirty-four being 20 or more, one going to 28. The pulse in all cases was full and regular. It went over 100 in twenty-one cases. It remained 80 to 90 in eleven, 70 to 80 in nine, 60 to 70 in six cases. It increased 30 or more beats in six cases, 20 or more in twelve, 10 or more in sixteen. It remained unchanged in twelve cases. One case had heart failure on the table, and recovered under $\frac{1}{16}$ grain of strychnine with oxygen and artificial respiration. In the case aged 70 stimulation was required until death, six days later. He was operated on for perineal abscess, and had general septic infection. No case had shock. Nausea was present in nine cases, seven vomited. Three cases took chloroform badly, and were changed to ether with good effect. The average amount of chloroform used was 6 drachms. No case required more than $1\frac{1}{2}$ ounces, one required less than 1 drachm, four used 2, three used 3, four 4, 8 five, &c. The following conclusive advantages are claimed: (1) The shortened stage of excitement and absence of fear of anaesthesia. (2) The small amount of anaesthesia required, thereby materially lessening the shock. (3) Relief from post-operative distress. (4) The pleasing effect on the family and friends. (Reported by Dr. W. H. Whitlock in the *Chironian*, November, 1907, p. 157.)—ED.

Mercuric Oxycyanide. *Fatal Poisoning.*—The following case of acute mercurial poisoning after absorption of a very minute dose of oxycyanide of mercury, was related by M. Thiroloix to the Soc. Méd. des Hôpitaux.

On June 20 last a young man consulted a doctor friend on account of a blenorragia, which had existed twelve days and for which he had employed sandal-wood oil and urethral lavage of permanganate. On June 30 the doctor, knowing that there had been a first attack two years previously, practised catheterism after injection of stovaine. In spite of the latter the passage of the bougie caused intense and very painful spasm in the membranous portion of the urethra. When the bougie was withdrawn, in order to ensure complete antisepsis, 100 grammes of a 1 in 4,000 solution of oxycyanide of mercury were introduced into the bladder, and the greater part of it was at once expelled. Lastly, the external genitals were douched with a litre of 1 in 2,000 solution.

At 9 p.m. the patient experienced violent rectal and vesical tenesmus and made incessant and fruitless efforts to urinate and go to stool. A neighbouring medical man was called in and found the penis tumefied and drawn up on the abdomen in a state of full erection, the region of the bulb being indurated as if injected with tallow. There was absolute inability to urinate, and from the urethra oozed a clear rosy liquid. The bladder was moderately distended and the urethra was obliterated by swelling of its mucosa. Dr. T., called in in consultation, practised suprapubic vesical puncture and withdrew about 500 c.c. of clear urine. The axillary temperature was 38° C. The night was very comfortable.

Next day the general condition appeared good. The vesical tenesmus had ceased, but several times during the day there were attacks of severe rectal spasms, followed by expulsion from the anus of a bloody liquid. Percussion over the pubes showed that there was no vesical distension, indeed, from this moment anuria was present and continued until death.

The tumefaction of the penis, œdema of the scrotum and perineum, and the apyrexia continued as before.

On July 3 stomatitis was found present, characterized by fœtor of the breath, moderate salivation, and particularly by the appearance of numerous grey gangrenous patches on the edge of the gums, the lower aspect of the tongue, and the pillars of the fauces. From July 4 onwards the anuria was combated by hot baths, the exhibition of theobromine and abundant drinks. On July 6 the evidences of mercurial intoxication were more pronounced (bloody stools with colic and rectal tenesmus, anuria and ulcerative stomatitis). The local condition was still the same (penis distended to its utmost extent, blood oozing therefrom,

and oedematous infiltration of penis and scrotum). Two attempts were made to set up artificial aseptic suppuration by means of essence of turpentine (after the method of Arnozan and Carle), but the reaction was *nil*.

In the evening of the same day uræmia had set in, evidenced by pronounced myosis, incessant painful hiccough and dyspnœa. Matters steadily became worse and the patient succumbed at 6 a.m. on July 9 to an attack of syncope.

During nearly the whole course of the attack there was complete apyrexia, and intelligence remained intact. There was no eruption and no sensory or motor troubles. (*L'Art Médical*, November, 1907, p. 373.)—J. G. B.

Polygonum Punctatum in Varicosis.—Dr. P. W. Shedd, of New York, draws attention to the probable value of *polygonum punctatum* in hæmorrhoids and other varices, and regards it as an analogue of *pulsatilla*, *hamamelis* and fluoric acid. This use of the drug is suggested on the basis of the case of an old sailor who had all his limbs covered with varices, which vanished under its prolonged use, a case of hæmorrhoids, and another of uterine hæmorrhage in which it proved curative. (*New England Medical Gazette*, January, 1908, p. 23.)—ED.

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“ASCENDING INFECTION” IN WOMEN.¹

BY JAMES JOHNSTONE, B.A., F.R.C.S.ENG., M.B.ABERD.,

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THE title chosen for this short paper no doubt has seemed somewhat mysterious to some of my colleagues, but it was chosen advisedly, for two reasons: first to lessen, if possible, the unpleasantness which is associated with circularizing the subject of venereal infection generally, and secondly to draw more earnest attention to a special phase of that infection which is not seldom lost sight of in the general practice of medicine, but which is of serious import not only to the individual female but to the collective community.

It needs but a slight acquaintance with surgical and medical literature to make one aware that more attention is given to gonorrhœa in the male than in the female. How many treatises have been written on the disease in the

¹ Presented to the Section of Surgery and Gynæcology, February 6, 1908.

male, and how little reference is made to its effects in the other sex. Various reasons may be urged in reply. The more urgent pain and more obvious clinical symptoms in the male no doubt tend to rivet attention to his ailment, particularly as the patient is forcibly reminded of his disease each time he micturates. The initial symptoms are unmistakable and cannot be overlooked. In the female it is otherwise. Accustomed to vaginal discharge of varying nature, a yellow discharge on some particular occasion excites little surprise, and, if painless, calls for no special treatment.

It is frequently overlooked by both patient and physician. But, as we shall see later, that oversight may mean months and years of suffering invalidism and sexual incapacity. The troubles that may ensue to the woman from such a neglected discharge are, unfortunately, too many, and many most serious, and it is only of late that this fact has become recognized. How many of our teachers twenty years ago, fifteen years ago, yea—even ten years ago—would suggest the gonococcus as a cause of peritonitis in the female, while to-day the best informed authorities reckon it as almost the most frequent microbic factor. The observer who pointed out this fact with any degree of insistence, backed by microscopic proof and scientific experiment, was Wertheim, of Vienna, fifteen years ago. His treatise was painstaking, exhaustive and conclusive, so much so that since then his dictum has been accepted without question.

Before his investigations were made known, gonorrhœa in women was regarded as of slight importance, as being more easily and quickly cured than in man, because the easily accessible vagina permitted more perfect radical treatment. Little heed was taken of after-results. They were not suspected.

Wertheim insisted that the disease was fraught with the gravest danger to the woman, not in the way of immediate and acute suffering, but in the serious lesions induced later in date and further into the ramifications of the genital canal, lesions often resulting, if not radically dealt with, in inveterate chronic invalidism and too often in hopeless sterility.

The active agent in this infectious disease is, as you know, the gonococcus, a microbe discovered by Neisser in 1879. Its doubled or paired shape makes it distinctive to the eye, and by suitable staining it may easily be differentiated and recognized in discharges and tissues. Its presence is constantly associated with the clinical symptoms of gonorrhœa, though the variation in degree of intensity may range over wide limits. The microbe can be cultivated in a pure strain outside the body, to reproduce the disease when reinoculated on healthy mucous membrane. This has been experimentally proved in man and is beyond a doubt. From the disease induced experimentally the organism, in full virulence, can be obtained. Unfortunately one attack does not minimize or prevent another, nor, in other words, can immunity be induced naturally or artificially. This fact has no doubt some relation to the want of success in treating the disease by serum-therapy.

The micro-organism may under certain circumstances take on an "involution form" in which the morphological characters are altered, and, in particular, the faculty for staining is lost. But the virulence, though dormant for a while, is capable of reappearing in full force. This phenomenon is known as "latent" gonorrhœa. It is probable that the recesses of the tubular glands of the prostate in the male and the uterine mucosa in the female are the favourite hiding places of the microbe in its dormant condition. In "latent" gonorrhœa a person may have had an acute attack which subsides easily, leaving only a slight thin discharge of which no notice is taken, and in which no gonococci are to be discovered by staining. The disease is thought to be cured and yet infection, even of a violent character, may result. The following train of manifestations is known to occur, and serves to illustrate the danger of this phenomenon of "latency."

After marriage it is possible for a long cured (?) gonorrhœa in the husband to induce a violent attack in the wife. From this induced attack, where the gonococci are in a fresh and virile condition, the husband may be reinfected, raising suspicion in his mind that his wife had been infected

before marriage. He is quite unaware of the fact that his antecedent and long-cured gonorrhœa has given rise, after a period of latency, to the revival of the acute symptoms. The persistence of the disease in the wife and the cure in the case of the husband after separation for a time may, on reunion, result in reinfection of the husband from the wife. Such are some of the clinical vagaries of this disease and the embarrassing complications are obvious.

Unusual modes of infection may give rise to attacks of the disease, unrecognized as such, but capable of inducing the after-effects for which good cause may not then be obvious. A few years ago in my own practice a case occurred which suggests possibilities in the future. A mother brought her baby to me suffering from what appeared to be an ordinary vaginal discharge, not unusual in infants. Its persistence after mild treatment was explained by the fact, which gradually leaked out, that the baby's nurse was being treated by another medical man for gonorrhœa. The presence of gonococci in the discharge from the infant confirmed the suspicion as to origin and nature. Though the infant is long ago apparently well from gonorrhœa, there may yet follow the later effects of sterility or pelvic disease. It is well known that gonorrhœa, either as vulvitis or ophthalmia, is easily transmitted from child to child in hospitals and orphan asylums, by the careless use of sponges, towels, thermometers, &c. Hence manifestations in after life and conditions of the pelvic organs may have their origin in unrecorded infantile gonorrhœa.

THE INVASION.

As the gonococcus attacks mucous surfaces only, the stratified epithelium lining the vagina and vaginal portion of the cervix uteri remains free. Hence vaginitis is not usually a symptom of the disease, and early and acute warning is not afforded as in the case of the male urethra. The glands of Bartholini, situated in the vulva somewhat posteriorly, are nearly always affected, and the reddened punctate patches, indicating the inflamed orifices of these

glands, may be looked on as a very suggestive sign of the disease. It used to be held somewhat generally, particularly on the Continent, that bartholinitis was a sure indication of gonorrhœa. I have, however, operated for abscess in these glands in girls under twenty in whom there could be no suspicion whatever of their having been subject to specific infection. Inflammation of these glands does not always mean gonorrhœa.

The next part of the genital tract to be affected is the mucous lining of the cervical canal. This is normally occupied in its lower part by a plug of mucus, free from microbes, which seems to act as an aseptic barrier to the spread of micro-organisms upwards. Should the barrier be at fault, owing to previous disease or mechanical interference, the microbes are allowed an easy passage upwards. An endocervicitis is the result, followed by endometritis. The infection penetrates to the deep ramifications of the glands of the uterine mucosa and even to the muscular layer itself. Hence we have metritis set up. Even after a case has been apparently cured, it is in the depths of the uterine glands that infection may remain and take on the latent form, to break out afresh under favourable conditions.

The clinical signs of these conditions may be grouped thus: eversion and erosion of the vaginal portion of the cervix, cysts of the Nabothian follicles, hypertrophy of the uterus, usually with tenderness.

From the uterus the infection spreads to the lining of the Fallopian tubes, which may thereby become seriously and completely impaired as regards their function as oviducts. Owing to involvement of the interstitial tissue and muscular layers the tubes become thickened and tortuous, the lumen may be narrowed, even occluded at some points, and distended by accumulated purulent or serous secretion at others. Hence we have "pus tubes" and Fallopian cysts. The infection spreads still further, escaping from the Fallopian tube and attacking the adjacent ovary and peritoneum. The attacks of peritonitis as a rule recur, frequently producing dense adhesions involving the pelvic organs and intestines in a confused mass. Occa-

sionally the attack of peritonitis is severe and general, and may endanger the life of the patient. The most serious case in my own experience occurred five years ago in a lady who had recently been on holiday in the country. During her absence the husband, under the influence of alcohol, ran the risk of infection and developed an acute attack of gonorrhœa, verified by bacteriological examination. Unfortunately the wife returned somewhat unexpectedly and, before a warning could be given, became infected. For about a month there was nothing unusual in the course of the disease, but at the end of that time it was evident that the pelvic organs were well involved; peritonitis ensued with rise of temperature, general abdominal pain and distension. At this stage I had the advantage of the advice of my colleague, Dr. Burford. Under ordinary circumstances the condition of the patient would have been considered most grave, but knowing the character and route of the infection it was possible to give a more favourable prognosis. Under the use of belladonna and mercurius corrosivus internally and belladonna fomentations externally the serious symptoms soon subsided, the pelvic exudation, which had been severe, began to reduce, and in six weeks the patient had quite recovered. This occurred in 1903, and there has been no recurrence of any trouble.

It is not every patient that is so fortunate. The more usual result is chronic disease of the pelvic peritoneum with involvement of the adjacent organs. The clinical picture presented by such a case may briefly be described as follows: dysmenorrhœa, leucorrhœa, constipation, irritable bladder, sterility, chronic invalidism, bedridden often, wasting, rise of temperature of 2° or 3°, indigestion, neuralgias, mental depression and constant pelvic and referred pain. Many of these cases come to us for operation from the out-patient department of the hospital, and are fitted to tax to the utmost the resources of the surgeon. The adhesions between bowel, uterus, tubes, ovaries, and bladder are dense and almost hopeless to deal with. With patience and a certain amount of boldness the distended and often pus-filled tubes are disentangled from the depths of

Douglas's pouch and brought to the light for removal. The wonder is that fistula of bowel and bladder is not more common as the result of tearing the dense adhesions. As a rule removal of the diseased tubes and ovaries is sufficient, but if the uterus is much involved it may be necessary to remove it, either at the primary or at a secondary operation.

It is often difficult to trace these cases to an original attack of gonorrhœa owing to the gonococcus having undergone involution changes. There can be no doubt, however, that gonorrhœa is the most common cause of suppuration in the pelvis, Kelly being most emphatic on this point. The minor forms—short of suppuration—give rise to chronic invalidism and usually to sterility. Very frequently it happens that a woman who has had gonorrhœa becomes pregnant once and not a second time. This has been called by Sanger "one-child sterility." It is computed that twelve per cent. of all marriages are sterile, one-third being due to the husband, two-thirds being due to gonorrhœa.

Enough has been said to point out the serious and far reaching effects of this "ascending infection" on the reproductive organs of woman and of its all too common occurrence. The important matter of treatment is still to be considered.

TREATMENT.

In speaking of the treatment, the many details essential in practice are too extensive to be dealt with in the time at my disposal and I therefore propose to direct attention only to certain broad principles which should guide us in grappling with this insidious and serious complaint.

First as to prophylaxis : the question arises, When should a man suffering from gonorrhœa be allowed to marry? Keeping in mind the chronic form, which often persists for months and years, and the latent phase of which the microbe is capable, one must defer the licence to marry till all possible risk is well passed. Microscopic examination is not a complete test, for the infective material may be in such an "involution form" as not to be disclosed thereby.

The acute stage in women should be discovered as early as possible while it is still confined to the genital tract below the cervical canal. Vaginal douching has its value, but if too strong may do harm by setting up an irritation which tends to augment the disease. Careful swabbing out of the vagina by the physician with the aid of the speculum and disinfection of the external parts, repeated from time to time and with as little resulting irritation as possible, seems the better plan. Treatment of the interior of the uterus and cervical canal should not be undertaken lightly, as infection may be carried in where it did not exist. The principle of avoiding irritation holds good here as in the vagina. The routine use of the curette is to be deprecated. It may be necessary in severe cases of menorrhagia, but for the milder cases the introduction of some effective and less irritating disinfectant on a Playfair's probe is likely to give the best results.

For the involvement of the body of the uterus, tubes and other pelvic structures constitutional treatment is all-important and may be summed up in physical and functional rest, carefully adjusted diet and due attention to the functions of bladder and rectum. Local treatment in the form of hot douches, baths, glycerine and medicated tamponnade continued over a long time and varied or intermitted as occasion demands, is the only alternative to more radical surgical measures, which have already been indicated.

The remedies most useful when the infection has ascended to the region of the peritoneum are belladonna and mercurius corrosious in the acute stages, sepia, sulphur and silica in the more chronic conditions.

This short sketch of "ascending infection" does little more than present the main outlines of the condition, but will have served its purpose if it results in directing attention to a malady which has been treated far too lightly until recent years and which, as we are now aware, affects so seriously the health of woman and her fitness for her rôle in Nature.

Dr. SPIERS ALEXANDER (in the chair) said that Dr. Johnstone's paper had particularly impressed him with the importance of treating a case in its inception. He supposed, however, that the majority of cases which came to the hospital had already passed beyond the stage of incipency, not perhaps altogether due to the *laissez-aller* policy which was so prevalent amongst people, but because, as Dr. Johnstone had pointed out, even vigorous treatment was sometimes insufficient to prevent the ascending tendency of the disease. He would like to ask Dr. Johnstone whether, among the medicinal agents he had tried in females, he had used those medicines which were so very useful in the acute stage of the disease in men, namely, *cannabis sativa* and *thuja*. It occurred to him (the President) that such medicines might be of value in the incipient stage of the disease in the female as well as in the male. He took it that when Dr. Johnstone referred to serum therapy he was speaking of the use of an antitoxin. He (the President) would like to suggest that possibly a vaccine, in contradistinction to an antitoxin, might be tried on the opsonic principle.

Dr. BYRES MOIR mentioned that in the old days homœopaths were taught to believe that irrigation was the worst possible treatment of this disease; such treatment would spread infection. He asked Dr. Johnstone if he thought irrigation was a source of danger in such cases.

Dr. NEATBY observed that Dr. Johnstone had brought forward a very important subject in an extremely clear and full manner, as full as could be expected at such a meeting as the present. He thought, perhaps, as Dr. Johnstone had mentioned the history of the subject, it was fair to go back even a little further than Dr. Johnstone had done, and to say that two French authors, Bernutz and Goupil, stated, long before the days of Wertheim and long before the days of bacteriology, that the lesions were due to an acute infective disease of the kind under discussion, an acute gonorrhœa. Bernutz and Goupil had written on the subject in the fifties of last century. He would like to mention a point which Dr. Johnstone had not brought forward—a very happy fact perhaps for the human race—namely, that the gonococcus was very readily destroyed by the ravages of other bacilli, and also by changes of temperature or by the abstraction of moisture, so that when the temperature to which the cocci were subjected was considerably lower than that of the human body they were either killed or their activity was very much lessened. With regard to what Dr. Johnstone had said about gonorrhœa in children,

Dr. Neatby was sure that, happily, peritonitis was comparatively rare as a result of gonorrhœa in children. It had been calculated by Dr. Drummond Robinson, who wrote some years ago in the *Transactions of the Obstetrical Society*, that in his out-patient department he came across some 75 per cent. of cases of children's vulvar and vaginal discharges which were due to the gonococcus, the gonococcus being proved to exist not only by the features which had been named by Dr. Johnstone, but also by its peculiar habits with respect to cultures. In regard to urethritis he (Dr. Neatby) considered that it was a little more common than Dr. Johnstone thought it was. He quite agreed with Dr. Johnstone that cases of this kind cleared up sometimes much more satisfactorily than one expected. He remembered being called to see a patient one night in a hurry, and found a lady suffering from acute-peritonitis. He concluded she had gonorrhœal salpingitis, and there was a considerable inflammatory effusion, as Dr. Johnstone had described. He (Dr. Neatby) settled in his own mind that the lady would have no children, but as time went on the symptoms subsided, and she had had two children. He rather wished that Dr. Johnstone had gone a little more into detail with regard to treatment. He drew attention to one treatment which he believed to be a very useful one, based on what he had already stated as to the susceptibility of the gonococcus to destruction by other agencies, amongst others that of yeast. The yeast plant would grow when it was put in contact with the mucous membrane and leucorrhœal secretion, and would destroy the gonococcus very effectually. That treatment had been used on the Continent, in the female subject at any rate, with success.

Dr. WYNNE THOMAS observed that it was a feasible explanation of the fact which Dr. Neatby had mentioned, that gonorrhœa in children was not followed by peritonitis, that the gonorrhœal poison never ascended the vagina into the uterus because children of twelve and under did not menstruate, and also were not subject to the suction effect of coitus.

Dr. GRANVILLE HEY said with regard to the frequency of gonorrhœal urethritis, and also in connection with the red patches on the inner surface of the labia minora, that during his stay in Vienna he saw different methods of examination from what British practitioners were accustomed to. In making vaginal examinations gynæcologists in Vienna invariably placed the patient in a modified lithotomy position, and the first thing they did was to pass the index finger just inside the vagina and press upwards and forwards to ascertain whether they could express any secretion from the urethra or not. If they could it

was regarded as suspicious of gonorrhœal infection. After that, the labia minora were turned outwards in order that search could be made for the red patches, and some gynæcologists said that if those two red patches were found on the inner surface it was absolutely pathognomonic of gonorrhœal infection. Then with regard to treatment, the methods adopted in some of the cliniques in Vienna differed very largely from those adopted in this country. In one clinique he saw a girl, aged about 17 or 18, who had had a miscarriage. She was suffering from acute gonorrhœal infection with pelvic peritonitis. The gynæcologist into whose clinique she was taken was not quite clear about his diagnosis, and he thought that most probably the girl had appendicitis, from the localization of the pain. He (Dr. Hey) saw the case through. The abdomen was opened; it was found that the appendix vermiformis was healthy, but the whole pelvis was acutely inflamed, and without raising any doubt as to expediency a clean sweep was made of the uterus, ovaries and tubes. In his opinion this was most unjustifiable treatment. In another clinique the method which seemed to produce the best results was the application of hot air locally to the pelvic region. In Professor Schauta's clinique there was a special apparatus for applying hot air to the region of the pelvis and lower abdomen. The patient was subjected to that treatment for days on end, and various douches were used. Very little was done in the way of internal medication, and it was very interesting to see how many of the cases got well with such treatment, combined with rest and suitable diet. In connection with the desire of some to operate, it might be interesting if he mentioned a case which he had under his charge in the London Homœopathic Hospital last autumn. The case was sent in by an allopath. It was a young woman who no doubt was suffering from acute pelvic peritonitis of gonorrhœal origin, with a large inflammatory mass to the right of the uterus. The gentleman who had sent her in suggested immediate operation, but he (Dr. Hey) took another view of the case. She was packed with hot-water bottles, had hot applications to the lower abdomen, and hot vaginal douches with sepia internally. When the patient left the hospital at the end of three weeks there was absolutely no trace of the inflammatory mass to be felt in the pelvis, and as far as one could tell from an external examination she was quite well. He was of opinion that with the drug treatment which homœopaths had at their command much better results could be looked forward to by such treatment than by other methods.

Dr. JOHNSTONE, in reply, thanked the members present for

their lenient criticism on his paper. The paper was only intended as a means of bringing to their notice the effects of the disease rather than to deal with it in any exhaustive way. There were a great many points intentionally left out; for instance, rectal infection and infection of the urethra, to which Dr. Neatby had called attention. There was a little gland at the neck of the urethra where infective material might lurk for a long time and produce subsequent trouble. With regard to Dr. Moir's question about irrigation, authorities were divided on the point, but he thought most homœopaths considered the best plan was to make local applications by means of the speculum, wiping out carefully the whole of the vaginal surface with some strong antiseptic or caustic, which ought to be done frequently, perhaps twice a day, and then stopped for a week to see the result. That method certainly was preferable to vaginal douches carried out by the patient or by a nurse, as the douches certainly might tend to weaken the natural barrier to the infection ascending. With regard to the use of *cannabis sativa*, that was really a bladder medicine and acted probably through the urine, and had not much effect upon vaginal gonorrhœa. The President had also suggested vaccine. His reply to that was that the gonococcus would not grow on animals, and therefore one could not get a vaccine from animals, and to obtain a vaccine from a human being was not feasible. Dr. Neatby had referred to the earlier works than Wertheim's on the disease. Certain it was that Bernutz and Goupil did suggest the whole picture long before bacteriology was known, but they were not ready to prove it in the same way that Wertheim did when he obtained the gonococcus microbe as a test to apply to the whole thing. The reason why there was, as a rule, no peritonitis in children was somewhat difficult to find. His own suggestion would be the following—an anatomical suggestion. It was known that in children the glands of the interior of the uterus, and the Fallopian tubes themselves, were not developed to the same extent as in older persons, and it might be due to want of full adult development that the microbes could not get through the Fallopian tubes. There were various points with regard to treatment. Dr. Hey's remarks on the hot air treatment reminded him that it used to be a practice in such cases to curette the uterus. That treatment was found to be a mistake; curetting only seemed to irritate the gonococci out of their nests at the bottom of the glands, and fresh infection was set up after curetting. There was also the danger that the gonococcus might get into the systemic circulation and produce effects on the joints and elsewhere.

ARTERIAL BLOOD-PRESSURE.¹

BY BYRES MOIR, M.D. EDIN.,

Physician to the London Homœopathic Hospital.

ACCORDING to Halliburton, the Rev. Stephen Hales, vicar of Teddington, was the first to demonstrate blood-pressure in the year 1727. He inserted, using a goose-quill as a cannula, a glass tube at right angles to the femoral artery of a horse, and noted the height to which the blood rose in it. The blood rose to the height of about 8 ft., and having reached its highest point, it oscillated with the heart beats and also with the respirations.

The method had its disadvantages, and you see before you on the table to-night some of the instruments that have been invented since then for the purpose of measuring blood-pressure, and I am afraid we have not yet found the perfect instrument. This can be easily understood if I refer, without bothering you to-night with the physiology of the subject, to the factors on which the blood-pressure depends.

We have: (1) the energy of the heart; (2) the peripheral resistance; (3) the elasticity of the arterial walls; (4) the volume and quality of the circulating blood.

It is easy to see that for each individual there must be a normal condition of the circulation, depending upon these four factors, and when there is a departure from this normal state we wish to find out which factor or factors are at fault. Increased pressure may arise from any of the factors, and it is interesting to see how different observers dwell upon different points. Clifford Allbutt has brought a new subject into the question, viz., the viscosity of the blood, which deserves especial consideration from the point of view of peripheral resistance. When we consider the capillary circulation, we can see the importance of this.

The workers in the field of blood-pressure have been many; of books the best are Janeway's "Clinical Study of

¹ Presented to the Section of General Medicine and Pathology, April 2, 1908.

Blood-pressure," Russell's "Arterial Hypertonus, Sclerosis and Blood-pressure," and Oliver's "Studies on Blood-pressure."

The sphygmograph was the first attempt to measure the blood-pressure, and the best form of it we owe to our late colleague, Dudgeon. Janeway, in his work, referring to the sphygmograph, says: "These instruments are of purely historic interest, for the sphygmograph is an instrument whose results are notoriously subjective and dependent upon the observer who applies it." To this I will refer later.

Among the instruments upon the table we have Mummery's and Martin's modifications of the Riva Rocci, Erlanger's, Oliver's, Janeway's, Hill and Barnard's, and others.

These will be demonstrated at the end of the meeting, and now I will refer to the two with which I have been working—Martin's modification of the Riva Rocci and Erlanger.

The principle is the same in both—a rubber bag encircling the arm and inflated by means of a bulb with air, by which the brachial artery is compressed. In the Martin the pressure is taken above that necessary to stop the radial, and the point at which the mercury stands when the first pulse comes through is read off as the systolic pressure. In the Erlanger, instead of the pulse being felt, a revolving drum is used by which a graphic tracing is obtained. I have found the same result whether applied to skin or outside the coat.

But the influence of the vessel wall cannot be left out. Von Basch, of the Vienna school, one of the first to make practical use of a sphygmomanometer, considered that the pressure required to close the normal radial amounts to 1 mm., and even for sclerotic vessels, as not above 5 mm.; and Janeway says: "That a sclerotic vessel may offer considerable resistance to compression is a common belief, which I do not think is justified, and that errors from this source with the wide armlet, and using the first fully formed pulse as a guide, have little significance." They seem to have come to this conclusion from the observation

of dead arteries, and I fully agree with Russell that the thickness of the arterial wall is a most important factor, and that its compressibility varies according to the amount of arteriosclerosis present, and this must be overcome before we can determine the blood-pressure inside the vessel.

In blood-pressure we have not such a definite standard as in temperature—it is continually altering; first of all we see it raised during the systole of the heart, falling during the diastole—hence come the terms systolic and diastolic pressure, meaning the highest and lowest pressure of the pulse wave. Then we have the respiratory variations; it is altered by posture, muscular work, atmospheric pressure, temperature, cold winds; and mental emotions have also a marked effect.

NORMAL RANGE OF BLOOD-PRESSURE.

In young adults the lowest limit of systolic pressure that can be considered normal is 90 mm., while the upper limit can be put at 160. In the great majority of young males the pressure is found to be from 100 to 130. In females generally the pressure is found to be about 10 mm. lower than in males. Professor Leonard Hill gives 120 to 125 mm.; Professor William Russell gives 105 to 115 (not above 120); Dr. Oliver puts it at 115 to 125.

Colonel Deane has drawn up a table for me (see next page), the first part being taken from Janeway's book and the latter half from his own observations at Aldershot.

We have not as yet a uniform method of measuring the pressure, so that no complete comparison of these results can be made. Thus Janeway says: "The usual readings from Hill and Barnard's sphygmomanometer are neither diastolic nor systolic pressure, and cannot be compared with anything so far as absolute values are concerned." Then, again, in the measurement of systolic pressures, the narrow armlet affords higher readings, amounting to as much as from 10 mm. to 25 mm.

Colonel Deane has taken his with a 12 cm. armlet, in a sitting posture, the band at the level of the heart. The

	No. of Observations	Age	Range of Normal Blood-pressure (Systolic)	Method Employed
<i>Oliver</i> ..	Not given	Adult ..	90 to 145 mm. ..	Not stated
<i>Janeway</i> ..	Not given	Adult ..	90 to 130 mm. ..	12 cm. armlet
<i>Thayer</i> ..	89	20 to 30	Average 136.9 mm.	5 cm. armlet
<i>Jellinek</i> ..	532 soldiers.. ..	Not given	80 to 185 mm. .. Majority 100 to 163 mm.	1.5 cm. ring Gärtner's tonometer 5 cm. armlet
<i>Henson</i> ..	25 labourers ..	17 to 30	105 to 158 mm. .. (Average 137 mm.)	12 cm. armlet All the men were under gymnastic training at time of observation
Lieut.-Colonel H. E. Deane	164 soldiers ..	20 to 30	94 to 190 mm. .. (Average 128.3 mm.)	
	111 soldiers ..	20 to 30	90 to 146 mm. .. (Average 122.39 mm.)	
	33 soldiers ..	20 to 30	86 to 145 mm. .. (Average 114.54 mm.)	
	308		Average 124.7 mm.	
„	16 Army gymnastic instructors	25 to 38	107 to 158 mm. .. Average 129 mm.	

pressure is raised above the point where the brachial pulsation is stopped, and the first full beat coming through is taken as the point of measurement of the systolic pressure. The men were going through the regular work of the gymnasium at the time, and the average of 308 was 124.7. One man gave 190. The question of error in observation of pathological conditions comes in.

Since the table was printed Colonel Deane has examined at my request some persons in ordinary civil life; and, taking twenty-one men engaged in bank work, aged from 16 to 59, found a range of blood-pressure from 126 to 200, ten being 130, the average being 141.7. This, as you see, is much above what he found among the soldiers.

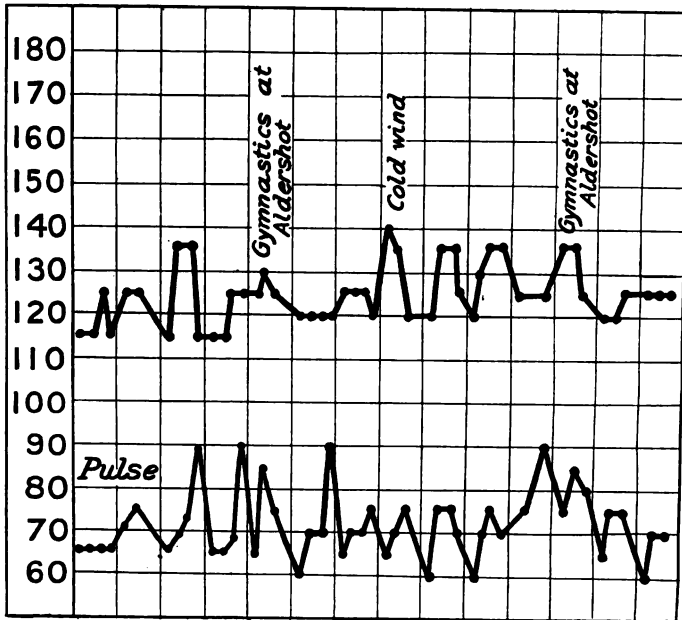
It is generally said that the pressure rises with age, and after 50 the average is considerably above that of early maturity, varying from 130 mm. to 145 mm., but it is still an open question whether there is any decided rise in healthy old age.

Colonel Deane has been examining some of the veterans at The Royal Hospital, Chelsea, and I have here the tracings with the blood pressure marked on them, and they

vary from 130 to 200, some of them giving the true pipe-stem artery. Very old age is impossible with hard arteries and high blood-pressure.

During the day the blood-pressure is affected by various mental and physical states, which vary with the individual.

Here is a thirteen days chart in which a record of both blood-pressure and pulse-rate have been kept three or four times a day, during the ordinary life of a healthy man, and



it is surprising how little variation is found, 115 to 140 being the limit, the pulse during the same time varying from 60 to 90, but no correspondence between the two can be seen. During a cold wind the highest point of blood-pressure was noticed, the pulse reaching maximum at 10 p.m. usually. Muscular work increases blood-pressure for a short time, but as a rule in subjects of good condition and training the arterial pressure is often found to be below the average normal pressure, whereas there is nothing so likely to send

it up as a sedentary occupation with many hours' confinement to the house.

I have again made use of Colonel Deane in solving the question of the effect of exercise, but before referring to experiments on himself, I note that he has obtained for me a report on the master-at-arms at Aldershot, a perfect specimen of physical development and champion swordsman in the Army, 38 years of age, and his blood-pressure average was 110.

On December 1, 1907, Colonel Deane's blood-pressure was 120 before doing any exercise; immediately after some gymnastic exercises lasting for three-quarters of an hour it was

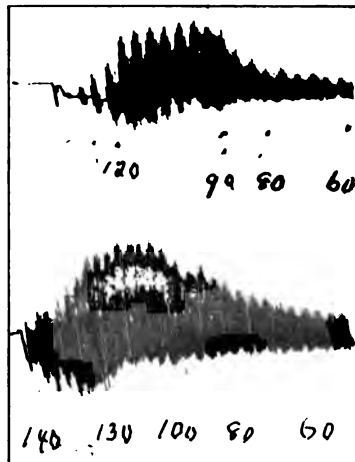


FIG. 1.

Pressure tracing with Erlanger's sphygmomanometer.

130 dropping rapidly to 98, and rapidly rising again to 110 when the observation ceased. This work was done before lunch; after lunch blood-pressure was 126. After travelling a long bridge ladder with bent arms—a very hard exercise, though short in time—it rose to 162, falling in about ten minutes to 130. The upper tracing (fig. 1) is Colonel Deane's normal one before exercise and the lower one is after short sharp exercise.

At 120 mm. is seen the abrupt increase in amplitude, which indicates systolic (or maximum) pressure. At 90 mm. the pulsation is still maximal, but at 80 it is much diminished; 90 mm. is therefore the diastolic (minimum) pressure. In the lower tracing after exercise the systolic pressure is raised to 135, and the diastole to 100.

Some experiments were made on myself to show the effect of amyl nitrite. With the Martin blood-pressure was 126. Three minutes from commencement of inhalation it was 104; it rose suddenly again in next two minutes to 130, fell as rapidly to 104, and an hour later was 116. This sudden

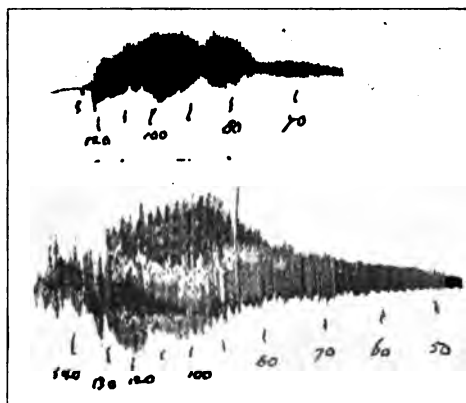


FIG. 2.

fall and second rise has not been noticed before, and I think the rise corresponds to the general flushing that takes place, for the pulse is increased in frequency even before the flushing begins, and much lowered in tension. This was well shown in a sphygmographic tracing.

Fig. 2 demonstrates by the Erlanger instrument the effect of amyl nitrite, the upper tracing being before, with a range of pressure from 120 to 90, and the lower taken during the time of inhalation. It also shows a rise to 130 mm., while one taken five minutes after the maximum pressure was at 105 mm.

Alcohol and tobacco are two interesting subjects in connection with blood-pressure that I shall not dwell upon to-night, but reserve for a future occasion.

PATHOLOGICAL LIMITS.

Pressures from 40 mm. to 400 mm. represent the extremes of tension recorded by reliable observers—the latter being in a case of cerebral hæmorrhage; but when we find a pressure regularly above 160 or below 90 it is time to inquire into the conditions which may be causing it.

Besides the physiological variations which have been mentioned, we find increased blood-pressure in gout and renal diseases. The causes of these we may consider together, viz., a high proportion of animal food, excess of alcoholic drink, inadequate exercise in the open air, want of perspiration and muscular tone and constipation, especially in a cold and damp climate like our own. As a result we have impurities in the blood causing resistance in the arterio-capillary networks and high pressure in the arteries. If this continues we have a change taking place in the muscular walls of the arteries exposed to the pressure, which become hypertrophied, and after a time the intima also becomes affected. We thus get arteriosclerosis developed, a term very loosely applied at present, as it is often used as if it was a separate disease, and can only properly be applied to the arterial changes. Arteriosclerosis is a general thickening of the vessels, and should be kept quite distinct from atheroma, which is a degeneration appearing in patches only.

In the study of blood-pressure many new names have been manufactured. Thus Dr. George Johnson, who was the first to describe the change in the tunica media, spoke of it as muscular hypertrophy. Savill, in 1897, called it hypermyotrophy. Clifford Allbutt, in 1894, described three kinds of arteriosclerosis, and for those with pre-eminently high pressure, the increase being permanent and morbid and not "senile" in character, gave the name of hyperpiesis. Russell, in his book just out, uses for a title "Arterial Hypertonus,

Sclerosis, and Blood-pressure"; by hypertonus meaning increased tonicity of the vessel, by means of which the wall of the vessel becomes somewhat thicker, that its diameter is reduced and its lumen correspondingly diminished.

In uterine fibroids the circulatory changes are most marked, and it is curious how much they resemble the gouty conditions, in spite of the great loss of blood that so frequently takes place. There is at first increased blood-pressure, with marked hypertrophy of the heart, but there is more danger in these cases, in the later stages, from degeneration of the muscular walls.

Dr. Purdom has taken notes of some four cases in the hospital before and after operation, the pressure before operation varying from 140 to 160, and after operation 128 to 136.

Neurasthenia I shall not dwell upon to-night, but expect some information from Dr. Burford as the result of his sphygmographic tracings.

In heart disease when valvular trouble is compensated, with blood-pressure instruments—as with the sphygmograph—no special changes are found, but in aortic insufficiency we have as a distinctive feature a low diastolic and a relatively high systolic reading. The range of pulse pressure (*i.e.*, the difference between the maximum and minimum pressure of each pulsation) is always much above the normal. Oliver gives, for example, a case with a difference between the systolic and diastolic pressure of 90 mm. instead of the usual 25 mm. to 40 mm.

LOW BLOOD-PRESSURE OR HYPOTONUS.

I gave the lower limit of range of pressure at 90 mm., and Janeway considers that 70 mm. is very marked hypotonus. Low tension is found with chloroform, wasting diseases, fever, hæmorrhages, collapse in medical work and shock in surgical; and no more interesting subject can be taken up at the present time than the effect of saline injections.

I now come to the question of the comparison of sphygmographic tracings with the results obtained by

these instruments in measuring blood-pressure. This has a personal interest for me, for in 1895 I read before this Society a paper entitled, "Pulse Tension: its importance as an Early Indication of certain Chronic Diseases, and its Recognition by means of the Sphygmograph." This was followed two years later by an article in the *London Homœopathic Hospital Reports for 1897* on "Changes in Circulation leading to Breakdown in Middle Life." This was before the days of instruments such as you see before you, and I relied upon Dudgeon's sphygmograph to show the changes taking place in the circulation. Soon after Dudgeon brought out his sphygmograph, I remember his showing me a series of pulse tracings taken during the illness of John Bright with acute bronchitis. The temperature chart and these tracings seemed to give a complete history of this case, and it was easy to follow the progress from them.

In a case of acute nephritis in a boy aged 16, who was in the hospital under Dr. Blackley, the late Dr. Lambert took the three tracings which I show you here. The first one, taken on the ninth day of the attack, shows well the contraction or hypertonus of the radial, the urine then containing abundance of albumin and tube casts. The next tracing was taken on the twelfth day, when, after hot air baths, there was only a trace of albumin present and the œdema had nearly disappeared; the next one, ten weeks later, when the boy was in a normal condition. These three tracings illustrate the progress of the case, and would have been complete if I could have given you the blood-pressure taken at the same time as the tracings, but at that time no instrument existed. In my first paper on "Pulse Tension" I gave tracings with short history of six cases, who were all living at the time. In these the sphygmograph gave evidence of high tension, and it is interesting now to refer to the history of them:—

Case 1.—A man, aged 63, died a few years afterwards of apoplexy.

Case 2.—A man, aged 50, is still alive, but has glycosuria and albuminuria.

Case 3.—A man, aged 48, died of heart failure two years ago.

Case 4.—A lady, aged 48, who was suffering from gouty eczema and glycosuria, died three years ago of diabetes.

Case 5.—A lady, aged 47, similar to the last, but seen at an earlier period, has got quite well.

Case 6.—A lady, aged 48, at the menopause showed hypertrophy of heart, had hæmorrhages into the choroid and several attacks of unconsciousness, called a few weeks ago to report herself and said she felt quite well.

The tracings of all these cases correspond, and the one shown may be taken as a specimen of them. My contention in the paper was that we had in these tracings an indication both of the danger and progress of the case; that unless the tensions could be reduced there could be only a fatal termination, and this happened in three out of the six, treatment in the others having been successful, more or less.

With evidence like this, in spite of what so many say about the use of the sphygmograph, my opinion is that it is of the greatest value in practice. It is quite true that it gives no idea of the amount of pressure, and in many cases may mislead one, as I will show you in a tracing presently; but besides showing any irregularity of the pulse, the sphygmograph gives some indications whether the pressure is maintained or not—thus in aortic regurgitations. In the tracing you have a complete diagram of the water hammer pulse, where pressure may be very high for an instant, but is not sustained, and hence there is all the greater danger when the arteries have lost this elasticity; and till we can get an instrument which gives the systolic and diastolic pressure with accuracy, the sphygmograph should not be laid aside.

To return to the question of actual measurements of blood-pressure, you may rightly ask that, while interesting, what bearing has it on actual practice, and how can it be made of practical use? As soon as Leonard Hill brought out his instrument Dr. Maurice Craig, working among mental cases with it, showed that melancholia was associated with high pressure and acute mania with low pressure, and was able to adapt treatment to the two conditions.

Dr. Oliver, in his "Studies in Blood-pressure," says: "In pulmonary hæmorrhage the study of blood-pressure has taught the inadvisability of prescribing remedies which contract the splanchnic arterioles—such as adrenalin, ergot, digitalis, veratrine, &c., remedies like subcutaneous morphia, calcium chloride and the nitrites being given instead."

Marfan says (*British Medical Journal*, March 21, 1908): "In pulmonary tuberculosis blood-pressure is generally lowered; when one finds it normal or above normal one may foresee a favourable termination. To this rule there are few exceptions, and we may say that the estimation of the arterial pressure is one of the surest means of recognizing the curable forms of pulmonary phthisis. A lowering pressure is in most cases an unfavourable sign, but by

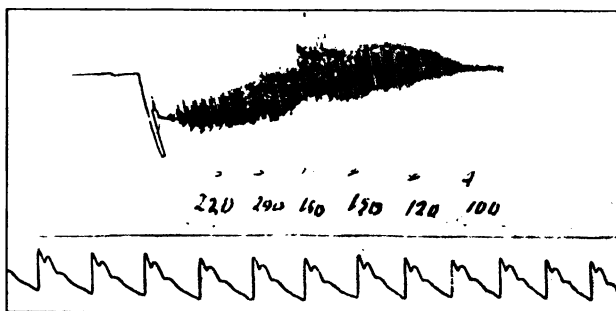


FIG. 3.

no means always, as a low arterial pressure does not exclude the possibility of amelioration or even of a cure in the clinical sense of the word."

There is nothing in practice like being sure—it makes the management of patients a much easier thing, and the estimation of the systolic pressure in the following cases was a great help to me.

Case 1.—In June last I was consulted by a lady, aged 58, a friend, who came with her, having informed me privately that she was taking alcohol in excess, and that it would be a great help to

the family if I could frighten her. When I found her blood-pressure at 180 mm. it was easy to do this, and the moral effect of the instrument, with the fear of apoplexy before her, has resulted in a complete reformation, with a fall of blood-pressure to 150 when I saw her last.

Case 2.—Mrs. T., aged 55, is at present under treatment. The periods ceased four years ago, but since then she has had heavy mental strains. On February 17 last she complained of headache, being tired and nervous and some difficulty with speech; there was no albumin in the urine and she did not appear to be ill, and I was surprised to find her with a blood-pressure of 230 mm. A few days later she had a sudden attack of numbness and tingling in the lips on right side, followed by the same feeling in right hand and arm; her blood-pressure was then 238.

Fig. 3.—This is a slide showing the Erlanger tracing and also a sphygmographic tracing. The Erlanger shows blood-pressure from 220 to 100, but is not satisfactory, as there is no marked distinction where the maximum beats begin and end, and, though the sphygmographic tracing shows some tension, there is no evidence in it of such high pressure. I saw her a week ago, when Martin gave her pressure as 212, and these symptoms had passed away, and I am hopeful that she may get quite over the trouble.

Professor Russell refers to the temporary cases of cerebral symptoms as being due to hypertonus of the cerebral vessels, corresponding to what we see in the systemic vessels, and I certainly think this is the explanation of this case.

Case 3 (fig. 4).—Mr. R., aged 48, an American, sent to me by Dr. Grantham Hill, confessed to a hustling life, having made and lost several fortunes. In September, 1907, he woke up with giddiness and weakness in the left side; speech was affected and his face drawn up on the right side. He has improved gradually, but has not got back full power, some hemiplegia remaining.

When I examined him on March 11 I found the evidence of hypertrophied heart and general arteriosclerosis, the blood-pressure being 238 mm. A week later his pressure was 210 mm., with considerable improvement.

The Erlanger tracing was taken on the second occasion, and is a better one than obtained in the last case, where I think the

small amplitude is due to the hypertonus being more marked, with less hypertrophy of the heart. In this case I think there has been an actual hæmorrhage. The sphygmographic tracing resembles the last.

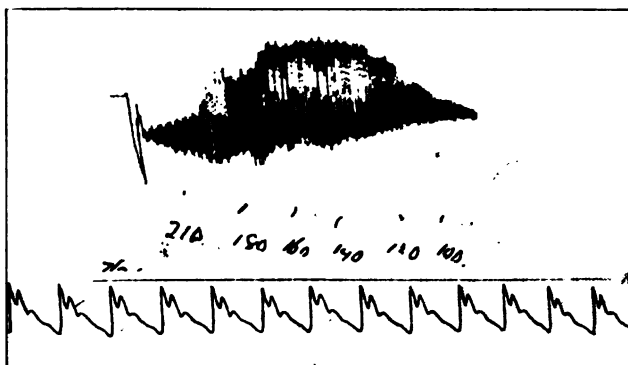


FIG. 4.

Case 4 (fig. 5).—S., a soldier, Colonel Deane brought round to me; he was suffering from Bright's disease, bronchitis and asthma. His blood-pressure taken with the Martin was 194;

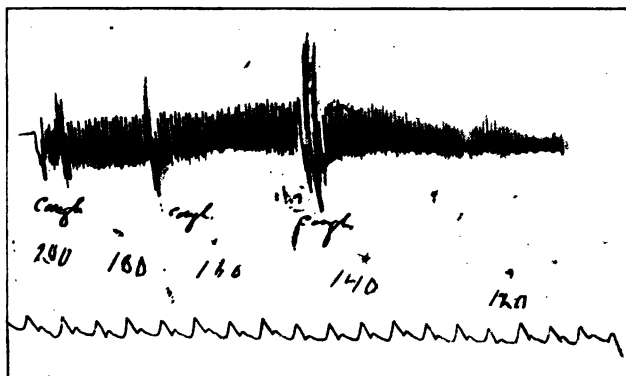


FIG. 5.

the pulse tracing was interesting, and it looks typical of a low tension dirotic, and evidently arises from a dilated heart and shows that reliance cannot be placed upon the sphygmograph alone.

Janeway, at p. 195, says, "that in cases of nephritis, at any rate, loss of compensation is not invariably attended by a fall of pressure."

Case 5 (fig. 6).—L. J., aged 74, was sent to me by Dr. Sandberg in July, 1907. He complained about constant uneasiness about the præcordia, with sharp shooting pains like a stab; the heart was much hypertrophied with heaving sounds and a systolic murmur at apex. He had a full bounding pulse, 32 per minute, and Martin's gave a blood-pressure of 290. This is the highest pressure that I have measured, and as it was evidently a case of heart block, which has been receiving so much attention of late, and is considered to be due to changes in the auriculo-ventricular band of fibres, Dr. Sandberg kindly arranged for him to return a week later, so that Colonel Deane and I could

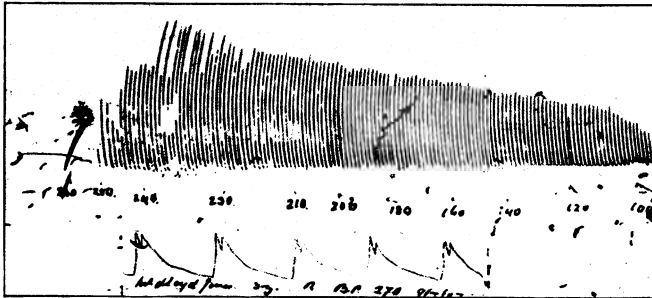


FIG. 6.

examine him together. This we did, and took this tracing with an Erlanger, and Colonel Deane, with Mackenzie's polygraph, was able to demonstrate that the auricles were contracting twice to one beat of the ventricle. We gave him a long sitting, and, I am afraid, in an enthusiasm of investigation, forgot the interest of the patient, for a few days after he had a bad collapse, which he rightly, I think, put down to our examination. With such a high pressure, and the danger (which in some cases may be a real one) of suddenly shutting off the amount of blood which is contained in the forearm, apart from the time we took, the Erlanger may be a very painful process. Dr. Sandberg tells me that his patient died in November, four months after we saw him.

Figs. 7 and 8.—Champion club swinger; taken before and after swinging clubs for twelve hours. The tracing does not show any marked deviation of the blood-pressure from the normal.

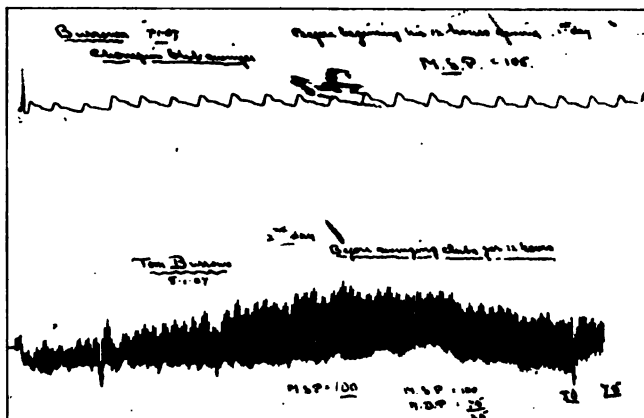


FIG. 7.

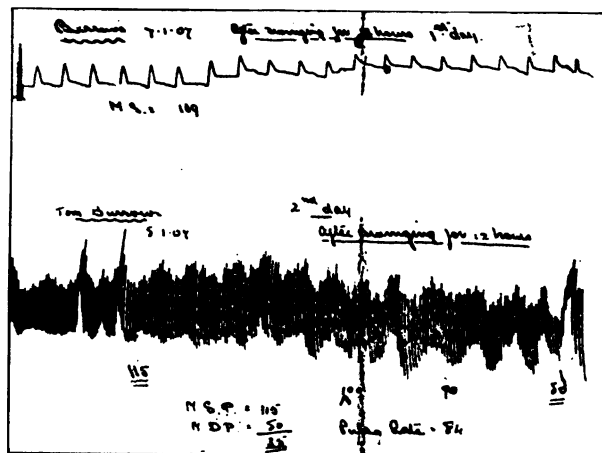


FIG. 8.

We have not yet got a perfect instrument for the determination of blood-pressure. Erlanger's instrument gives the most definite results with regard to both systolic

and diastolic pressure, but by the tracings shown it is easy to see that the points of limitation of where the systolic pressure begins and ends are not always accurately defined, and it is too elaborate to be used in general practice.

In Martin's modification of the Riva Rocci we have an instrument easily applied, and by which the pressure necessary to obliterate the blood-wave in the brachial artery can be accurately ascertained—though even here we cannot tell how much pressure is required for the arterial wall; but using it in any individual case we can observe any variation that takes place, and thus get useful information. In the short time that I have used it it has thrown light on many a doubtful case, and is a great help in telling of the progress made in lowering blood-pressure when it has reached a dangerous point.

The PRESIDENT remarked that the subject appeared to him to introduce an interesting and valuable aid to diagnosis and to prognosis. For some time past he had been using Martin's modification of the Riva-Rocci apparatus, and it had given him rather unexpected results. In one case in which he had used it—that of an epileptic—he expected, from the general condition of the patient, to find a high blood-pressure, but to his surprise only 90 mm. were registered. *Per contra*, only that day he had taken the blood-pressure in a lady of over 60 years of age, who also had been subject to epileptic fits, and he found 130 mm. were registered. He had treated both cases with the same drug—belladonna. In the first case, that of a young man, who had been having fits regularly every six weeks, after treatment with belladonna there had been no recurrence since last November. The second patient had had fits at intervals of some months for a good many years, but she also, after treatment with belladonna, had got better and had had no fit for twelve months. The dilution he gave was 3x. He should like to have asked Dr. Moir, had he been present, if he could throw any light upon the circumstance—which to Dr. Alexander seemed rather phenomenal—that in one case there was an abnormally low blood-pressure and in the other a somewhat elevated one; yet both were subject to the same perverted physiological action and both were greatly relieved, if not cured, by the same

medicine. Another case, in which he had had the advantage of Dr. Moir's coöperation, was that of a lady 45 years of age, who had been suffering from cardiac distress. In that case the blood-pressure registered 150 mm. The condition guided them to the proper treatment, and was therefore valuable. In view of the high blood-pressure it was decided to give the patient a course of Nauheim baths—he thought she had twenty-one in all. At the close of that period the blood-pressure had fallen to about 120, with great relief to the whole of the cardiac distress. The fall in the pressure occurred about a year ago, and happily the good effect had continued.

Dr. SANDBERG referred to the case mentioned in Dr. Moir's paper of T. L., where the extremely high blood-pressure of 290 was registered. The patient complained very bitterly of the treatment, i.e., taking the blood-pressure, and in consequence of it (according to his family) he had a very remarkable collapse about four or five days afterwards. He (Dr. Sandberg) was called to see the patient very early one morning and had found him practically in a moribund condition. A neighbouring allopath had been sent for, who had injected $\frac{1}{100}$ gr. of strychnine hypodermically, with no effect. He (Dr. Sandberg) thinking, as the man was nearly dead, that practically, he could make no mistake, improved on the allopath's treatment by injecting $\frac{1}{30}$ gr., and that was repeated three times in an hour. The result was the patient improved so much that he was able in a few days to get out and walk about. The improvement continued for about three months, when another attack occurred, to which the patient succumbed. The point Dr. Sandberg wished to bring out was that the patient's normal pulse, since he had been seen, was 44, but since the collapse the rate went down to 16. He (Dr. Sandberg) could not prevail upon the patient to allow the blood-pressure to be taken again—unfortunately, as it would have been interesting to see what it was. Before the patient went to see Dr. Moir he had been suffering from a severe attack of herpes zoster, and the medicine which seemed to have done him the most good was digitalis 1x.

Dr. NANKIVELL had had only a slight experience with the instruments exhibited. He remembered that when he was in the habit of going to Nauheim, Professor Schott had strongly maintained the view that a course of Nauheim baths would decrease the arterial tension considerably and the blood-pressure be kept normal. There was one exception to that, however. A gentleman who was staying at Nauheim not only had heart

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trouble, but suffered from chronic hæmorrhagic phthisis, and he was absolutely addicted to the habit of taking his blood-pressure himself about twice a week. The patient knew that when his blood-pressure approached 180 he would be in danger of an attack of hæmorrhage, and was therefore always on the look out for a rise in his blood-pressure. The rise in pressure would sometimes happen with considerable rapidity—in the course of a few weeks he would go from about 130 up to about 180. When the pressure rose to 180 the patient was pretty sure he would have an attack of hæmorrhage, and when he found his pressure was rising he was more careful in the regulation of his diet than he otherwise would have been in order to prevent such a high pressure recurring. He (Dr. Nankivell) had for the last two years visited Bourbon Lancy, a small town in France, for the benefit of his health, and he had seen there very distinct evidence—in his own case and in the case of others—of a decrease in blood-pressure. The baths there were extremely useful; they strengthened the heart and diminished in quite a remarkable degree arterial tension. People suffering from general gout also obtained considerable benefit, rather more, he thought, than at Nauheim.

Dr. GOLDSBROUGH said he should have liked to have had Dr. Moir's suggestions for treatment of high arterial tension from the homœopathic standpoint. A fair number of cases of high arterial tension were met with in the out-patient department of the hospital, and, of course, the patients could not be referred to the Nauheim treatment. They had to be treated in the best possible way with homœopathic remedies. He thought there were two or three remedies which were very useful—he had found arsenicum and bryonia of service, also baryta carbonica. The relation of arterial tension and high blood-pressure to an epileptic condition was an extremely interesting one, and the points brought forward by the President were instructive. He (Dr. Goldsbrough) believed, however, that if all cases of epilepsy which were presented were tested for blood-pressure, the pressure would be found to vary very much indeed, and there would be by no means a uniform result; that was to say, the epileptic seizure could be produced either by a high blood-pressure or a low one. In reference to Dr. Nankivell's remark about hæmorrhagic phthisis accompanied by high blood-pressure, was it not a fact that phthisis was generally improved by high arterial tension, and was it not a very rare condition to find, with a high arterial tension, any phthisical condition?

Dr. DYCE BROWN said the subject was a very important one, but, as all writers and observers agreed, it was but yet in an experimental state, and conclusions were a little uncertain. The great thing to be done—and which had been done by Dr. Moir and Dr. Deane that evening—was to bring forward definite facts. Facts were always important, and without them no conclusions could be justifiable or reliable. One point which seemed to him of extreme importance from a practical point of view was one which Dr. Deane had specially noticed, namely, that with any definite exercise the blood-pressure rose very considerably and then fell rapidly afterwards. If exercises were followed by a rise of blood-pressure and the pressure was kept up at the same time to about an average point, then the matter would be of less importance, but it seemed to him that, although the sudden rise and sudden fall afterwards might not be of much importance in a young man or woman, yet it was of very great practical importance in old people, who might have arteriosclerosis or other diseases of the vessels. If any active exercise was allowed or advised in old people, without the patient or the doctor being aware that arterial sclerosis was present, sudden hæmorrhage might occur owing to the sudden rise and sudden fall of the blood-pressure. He thought the feeling of old people, that they could do what they did twenty years previously, was not sufficiently recognized by the patients, and they very often overtaxed their strength and brought on a collapse. It might have a very bad effect in one way—that those who were the subjects of disease of the vessels might, as the result of overstraining, and increase of blood-pressure, be the subjects of cerebral hæmorrhage.

Dr. WYNNE THOMAS remarked the subject was a new one, and personally he knew very little about it. He should like to ask a few questions with regard to the carrying out of observations by the instrument. It seemed to him there were great possibilities for such an instrument. It might be useful in the future in standardizing blood-pressure, just in the same way as a thermometer standardized temperature. He should like to ask Dr. Deane what he considered the normal blood-pressure. Looking at the chart one was rather in doubt as to different men, who seemed to have a different average; and it seemed to him that the size of the armlet had some relation to the average pressure. From what he could gather an armlet which was less than 12 cm. in diameter gave a very different result from one of another size. Then, what were the limits of which an average pressure consisted in a healthy person? Dr.

Deane had been experimenting with soldiers, who had been undergoing physical exercise. He (Dr. Thomas) did not know whether soldiers ought to be considered average healthy individuals; it seemed to him that they were of extra and not ordinary average, and in tip-top condition. He hardly thought a soldier should be the standard to go by. Dr. Schott, he believed, said that the blood-pressure taken by the instrument varied according as to whether a person was lying down or sitting up, and he laid very great stress as to the difference in the pressure in these different postures—that if the blood-pressure went up very much when a person was sitting up it had a certain pathological significance. It seemed as if the instrument would be useful in prognosis, and he had always understood that if on feeling the pulse and finding that the apex beat was displaced outward and the second sound at the aortic area was accentuated, that those were signs of increased tension, and he thought they ought to be taken into consideration with the reading obtained from the instrument. He hoped Dr. Moir would be able to bring forward the results of further observations in the future.

Dr. HERVEY BODMAN could not speak too highly of the paper, containing as it did such a large amount of careful scientific observation. He himself had been using Martin's modification of the Riva-Rocci sphygmomanometer for the past twelve months, which had given him an opportunity of testing its value in connection with a considerable variety of cases, and he had not the least hesitation in saying it was of very real and practical value. In support of this opinion he would like to mention a few of the clinical observations upon which it was based. In the first place he would refer to two or three cases to indicate how the estimation of blood-pressure often threw light on the *pathology* of various conditions. The highest blood-pressure he had recorded was one of 230 mm., in a case of chronic Bright's disease. The patient had had a very copious epistaxis, for which he had been treated under other hands. He did not think the condition underlying the complaint had been recognized. The patient came to him; he found a hard pulse, took the blood-pressure, and found it was 220, and later 230 mm. Therefore it was obvious that the cause of the profuse epistaxis was the extremely high arterial tension. Under suitable treatment the patient improved, although his blood-pressure did not subside. Other cases which ought to be investigated from that point of view, he thought, were metrorrhagia and menorrhagia, especially those cases which occur about

the time of the climacteric, and often continue for a few years after the usual time of the menopause. He thought it would be found in a very large proportion of such cases that there was an abnormally high arterial tension. In one such case which he had investigated, the blood-pressure was 170 mm. He had made another observation on himself, in connection with the relation of gouty headaches and blood-pressure. He found that whilst the average blood-pressure was about 120 mm. to 125 mm. during a headache, through, perhaps, overwork and want of rest, the pressure rose to 150, dropping back again to 120 a few days later. He had one case which strikingly illustrated the *diagnostic* value of the estimation of blood-pressure. It was a case of hemiplegia, and the question arose as to whether the hemiplegia was due to cerebral hæmorrhage or to thrombosis. The case was one which followed an acute illness, and, of course, the nature of the treatment which would have to be adopted would be considerably modified by the solution of the question whether the case was one of hæmorrhage or thrombosis. On putting it to the test he found the blood-pressure was only 96 mm. It was almost inconceivable that a hæmorrhage could have occurred under those circumstances, and he thought, therefore, he was justified in coming to the conclusion that the cause of the hemiplegia was thrombosis of one of the cerebral arteries. As to the *prognostic* significance of observations made with this instrument, he had a case which bore somewhat on that. It had been referred to in connection with phthisis that a high blood-pressure was of good prognostic omen. The case he wished to refer to was one of Addison's disease. He first saw the patient about three years ago, and since then he had considerably improved, contrary to the general rule; besides having had homœopathic treatment, he regularly took three 5 gr. tabloids of suprarenal extract daily. He thought it would be interesting to estimate the patient's blood-pressure, and found it was 140 mm. He would like to put that case along with one recorded by Dr. Hale White in a recent number of the *Clinical Journal*. That was also a case of Addison's disease which had reached an extreme degree, and on going into the hospital the blood-pressure was 70 mm., and as the case progressed to a fatal termination, the pressure dropped to 48 mm., the lowest pressure which had ever been recorded by Dr. Mann, of Guy's Hospital, who made the observations. In the latter case the pressure varied from 70 to 48; whilst in his case, where the disease was apparently arrested, it was 140, showing, he thought, that in Addison's disease, like phthisis, a high pressure

could be taken to be of good prognostic significance. He had another case, which came under the head of *treatment*, as the estimation of blood-pressure distinctly helped to point the way to a successful line of treatment. The patient was a man aged 30, who had for some two or three years been complaining of his heart. The patient had already consulted two medical men, and had been told he must not take any violent exercise, and in consequence he lived under a cloud. On testing the pressure he (Dr. Bodman) found it was 150 mm., which was rather high for a young fellow apparently in good condition. On questioning the patient as to his diet, he found he took an abnormal amount of meat two or three times a day. He therefore came to the conclusion, from that fact and other things, that the chief cause of the patient's abnormal blood-pressure and also of his heart symptoms was the fault of diet. He advised the patient to considerably reduce his consumption of meat and to take more exercise; and on two subsequent observations the blood-pressure was reduced from 150 to 125 and 116, and coincidentally with that fall there was a very marked improvement in general condition and a practical disappearance of the heart symptoms. There was one more point which he thought worth while to refer to, namely, a method of observation apart from the use of any instrument at all, which threw some light on the blood-pressure. It had been brought forward in this country, he believed, by Dr. Leonard Williams; it simply consisted in comparing the pulse-rates in the standing and recumbent positions. It was generally known that in the normal individual the pulse-rate was a few beats higher when standing than when lying; but if there was an increase in blood-pressure the pulse-rates were either equalized or reversed; that is, in the latter case the pulse-rate would be found to be higher when lying than when standing. He had had an opportunity of testing that method two days previously. The patient he knew to have some increase of blood-pressure and slight cardiac hypertrophy. He took the pulse of the patient standing, and it registered 62; whilst lying it was 68; so that instead of being a quicker pulse standing than lying, it was the reverse. That bore out the observation which had been made, that one often could ascertain when increased blood-pressure was present by simply comparing the pulse-rate when standing with that when lying down.

Dr. JOHNSTONE remarked that up to the last speaker he had felt a feeling of disappointment, not with the paper, which embodied the long research of Drs. Moir and Deane, but with the

fact that there seemed to be so little clinical result from so much work in the shape of successful treatment or adaptation to treatment. However, he thought Dr. Bodman had amply filled that want in having given his testimony of the use of the apparatus and its application clinically to treatment. The results seemed to have been most successful. He thought after hearing Dr. Bodman's remarks he would invest in an instrument, although hitherto he had felt somewhat discouraged. He would like to ask the author if he had made any observations as to the blood-pressure in persons who were nearing their end—was there any rise before death? Also, had the author had any opportunity of observing what the blood-pressure was in cases after severe hæmorrhage and after operation involving hæmorrhage? If he could, that would give some idea of the minimum blood-pressure consistent with life.

Dr. MADDEN observed that what had most struck him in the little he had had to do in the matter under discussion had been the incompatibility—if that was the right word—between the sphygmographic tracings and the sphygmomanometer results; one did not always get a high blood-pressure with the high tension pulse on the sphygmograph. It would be rather interesting to know why in some cases one obtained a high tension with high pressure, in other cases high tension with low pressure, and in other cases high pressure with low tension. He would also like to emphasize the point in regard to the pain caused to a patient by the use of the sphygmomanometer with the large armlet in cases where the blood-pressure was high. He had found the pain had been so considerable that he had not been able to continue making observations. There could be no question that the method had great results before it, and there was also no question that definite results in regard to it in many directions had not yet been arrived at. It was, however, well worth while working at, and he hoped those who could spare the time would go into the subject and publish their results for mutual benefit.

Dr. DEANE, in reply for Dr. Moir, said with reference to the President's case he could not give an answer, but on their going over tracings together Dr. Moir had mentioned to him the very case in which the President had found difficulty—a case of epilepsy, in which Dr. Moir had expected to find a certain blood-pressure and had found the exact opposite. The explanation still remained a desideratum. With reference to Dr. Sandberg's case, the examination which he (Dr. Deane) and Dr. Moir made was not a

prolonged one; his own part was simply to put a tambour on the patient's neck to record the jugular pulse—nothing to interfere with his circulation otherwise at all. The thing which probably upset the patient was the band round his arm in taking the blood-pressure, but he (Dr. Deane) was rather sceptical whether this had really anything to do with the patient's breakdown a few days afterwards. He should have liked to have seen the pulse of the patient when it went down to 16, because in the tracing, in one part of it, the members would see there were two beats of an auricle to each ventricle beat, and when the pulse went down to 16 there might have been three or four beats of that auricle. Several members had made remarks about the absence of deductions and so on for treatment. He thought that was purposely left out; the paper would have been much too long with those deductions in. What one first of all wanted to know was what one had to treat. Dr. Moir and himself wished to pursue the subject by steps, and not be in a tremendous hurry about treatment before they knew what the facts were they had to treat. Speaking as a member of the audience, he would also like to ask Dr. Thomas, as Dr. Thomas had asked him, what was normal blood-pressure? He would go further than Dr. Thomas and ask what was a normal individual? Soldiers might not be characteristic of the normal individual, but who was—a man who sat in an office all day or a man who had an outdoor life? The difficulty was that no one knew what was the normal blood-pressure of the average man. It was commonly accepted that the normal range was from 90 to 160, but a man came along and talked about a blood-pressure of 130 being too high in a man of 21; but why? It was within the normal range of 90 to 160. Another man, say of 42, had a blood-pressure of 145, and he was told he must not take any exercise. But a pressure of 145 was also within the range of 90 to 160, and why, then, should it be called a high pressure? Those were questions which needed to be thrashed out; he did not know himself, and, as in many similar cases, when one applied to books or authorities, no information whatever was to be obtained on the subject. As Dr. Dyce Brown had said, facts were required before any conclusions were jumped at as to what was the significance of such facts. With reference to the normal blood-pressure, Dr. Thomas had suggested that the size of the armlet might make a difference. Janeway abolished all records of blood-pressures made with a narrow armlet; he wiped them all out and said that hardly enough experiments had been made with the broad

armlet to know what the normal blood-pressure was with them. They were talking as if the normal blood-pressure was a settled thing. Taking eighty-nine men with a 5 cm. armlet, the average came out at 136.9. Taking a larger number of men—his own men at Aldershot for instance—out of a total number of 308 gymnastic men with a broad armlet, the average came out at 124.7. What evidence was there which of those observations was the correct reading? Was the blood-pressure correctly stated when it was high with a narrow armlet or when it was low with a broad armlet? The fact of it was that an instrument had yet to be found that would record the blood-pressure correctly. When he entered the room that evening at a quarter to eight his pressure registered 230 with a certain instrument, yet his usual blood-pressure was from 120 to 130. Another point was—and he mentioned it with reference to the effects of treatment and exercise, and so on—that however expert one might be with a particular instrument, the following fact would be found: if the blood-pressure was taken at ten minutes to ten and was found to be 124, at nine-and-a-half minutes to ten he might make it 130, and at eight minutes to ten 126. Which of those was going to be taken as the normal blood-pressure? The books said, take the average. The members had seen the tracings taken of the blood-pressure of Tom Burrows, the champion club swinger. It had been gravely stated to him that the man's pressure had gone up from 105 to 110 after swinging clubs twelve hours a day for six days, and that was the effect of exercise. He rather doubted that; more difference than that could be got in two consecutive observations. A man had a blood-pressure of 130 one day, adopted treatment, and was very pleased to see that it had dropped to 118 the next day; but the probability was he would have found that difference without any treatment at all. The facts connected with the normal variation of the normal blood-pressure of a normal individual were not yet known, and the paper was designed by Dr. Moir with a view of drawing attention to the need of facts in healthy man before blood-pressure in diseased persons was talked about. What was the blood-pressure which called for treatment in an ordinary average man, and what sort of treatment was needed? The difference between the sphygmographic tracing and the blood-pressure was one of those things which needed explanation. Dr. Dyce Brown had said that when a man was getting on in life he should be careful about taking active exercise, but he should like to know at what age Dr. Dyce Brown considered a

man was getting on in life. He thought the Society ought to have a debate on the definition of ordinary terms. Would anyone define to him what active exercise meant? There was no definition, and the advice given to patients by medical men on the subject of exercise sometimes bordered on the humorous. If a medical man warned a patient not to take active exercise he was often giving the patient unnecessary and unjustifiable "funk." Generally speaking, a man over 40, instead of easing off his exercises down to below a certain point, should go beyond a certain point; he would keep younger and die older thereby. The object of the paper had been to try and collate a certain number of facts, and it would be seen what an enormous variation there was. With reference to the narrow band, Leonard Hill had brought out a sphygmomanometer which was very easy of application and gave no distress to the patient. Sometimes the broad band of the present instruments put round the arm did give rise to a certain amount of discomfort in some people, but Leonard Hill had replaced that by a little india-rubber bag, which was placed on the wrist. The instrument was very easy of application, and the only point was, Could the instrument be depended upon?

Mr. HAWKESLEY then proceeded to give a demonstration with the several instruments exhibited.

THE ANTE- AND POST-OPERATIVE TREATMENT OF ABDOMINAL CASES.¹

BY C. KNOX SHAW,

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Not long since a discussion occurred in the correspondence columns of the *British Medical Journal* as to who was responsible for the after-treatment of operation cases—the general practitioner or the operating surgeon. It seemed to be the feeling of some that the family medical attendant was quite competent to undertake this, and that he, to some extent, lost his patient if he were entirely handed over to the surgeon. The surgeons pointed out that success depended

¹ Read before the Liverpool Branch, April 9, 1908.

sometimes as much on the after-treatment as upon the operation itself, and that an error of judgment might prove disastrous to the patient and thus to the reputation of the surgeon. I think that this applies more particularly to abdominal operations than to any other, and I am inclined to think that here, at any rate, the operating surgeon should have a guiding hand.

Within the last few years a great change has come over the treatment of abdominal operations, and it is with a view of bringing before your notice some of the important advances that have been made that I am venturing to make a few short, and what I trust will prove to be practical, observations to you. I can now look back upon thirty years of constant and intimate association with operative surgery, and it is interesting to have watched the gradual evolution of modern surgical procedure in abdominal work. In my house surgeon days we thought we had done well to save three out of four ovariectomies; now we feel we have done badly if we lose three out of a hundred normal cases.

In abdominal diseases requiring surgical treatment we have two distinct forms, the chronic and the acute, and it is necessary to differentiate these in some measure as they require a somewhat different procedure. In chronic cases such as appendicectomy during the quiescent period, gastrectomy, gastro-enterostomy for pyloric obstruction, &c., we have time to make our preparations deliberately, and I propose to deal with the treatment of this class of case first.

No operation of any magnitude should ever be undertaken without a careful routine examination of the urine; and this is so in operations involving the peritoneal cavity. In cases where a prolonged and extensive operation is contemplated it is well, in addition to the usual examination, to see whether the excretion of urea is about normal, the normal being 2·3 per cent. In this paper I propose giving what is usually done in my own cases; but you may have different ways, as good—perhaps better—I want to tell you what I have found to be practical and successful.

Having decided that an operation is necessary and

advisable, and the general condition of the patient being satisfactory, I do not spend much time in preparation, but in gastric cases especially the condition of the mouth should be inquired into and any sepsis removed. A day or two of rest in bed is always advisable before the operation, and during this period light and easily digested food in reasonable quantity should only be given. The question of an aperient is one of importance. I do not believe in what is called a smart laxative, but usually find out what aperient the patient has been in the habit of taking. If the patient has been an habitual homœopath this is not easy, for they generally need none. Supposing there to be no particular choice a 10-grain powder of calomel 1x can be given two nights before the operation, followed by an enema the next morning and another enema the morning of the operation, if the operation is in the afternoon, or the night before if the operation is to be done early the following morning. This means that the patient is not upset just prior to the operation. The skin of the patient is shaved and prepared in the usual way, washing and gently scrubbing with soap and water for some time; then a compress of biniodide of mercury (1 in 2,000); then the application of soap, spirit, or ether, and a final wash with biniodide spirit before putting on the final compress, which is not removed until the operation is about to commence. If the nurse uses a little tact this part of the preparation need not distress or frighten the patient. I shall not enter on the general preparation of the surgeon himself or his assistants, or the nurses, as being outside the scope of this paper; such preparations apply to all operations. The patient should come into the operating room well clothed, the limbs and chest being enveloped in cotton wool. Except under quite unusual circumstances it is not my practice to give my patients any medicine, such as arnica, before the operation. If all goes well in a simple straightforward laparotomy, such as for recurrent appendicitis, it is not unusual for the patient to come into and leave the hospital without having had to take any medicine.

The operation over, the patient is placed in bed lying flat on the back with a pillow under the knees, until the

effect of the anæsthetic has passed off. Then the patient is carefully propped up with pillows, this being a much more comfortable position than the old one of keeping the patient lying flat. I make no objection to the nurse carefully moving the patient from side to side if it is desired; for many years we have done away with the glass drainage tube, but it has taken us as long to do away with the absolute rest the use of the tube involved. If the patient is restless, sleepless and in pain, I find belladonna 3x invaluable. I probably use this remedy more frequently after operation than any other, and in a great number of cases it is the only medicine needed. If there is slight shock or the patient seems anxious and complains of thirst, a rectal injection of $\frac{1}{2}$ pint of normal saline solution is given. This injection may be repeated every three or four hours. Another great improvement in the after-treatment of these cases is the withdrawal of the prohibition of fluid by the mouth. It used to be most distressing to see the suffering caused by thirst after a severe operation. Now as soon as the immediate anæsthetic vomiting is over I allow water, hot or cold, to be given in spoonfuls, and then a good drink is allowed, either of water, soda water, or thin barley water; a cup of weak tea is also much appreciated. After the first twenty-four hours, milk, broth, jelly, or custard can be given in reasonable quantities. The day after the operation I like an enema given, but no aperient by the mouth; in fact I find it most exceptional for the patient to need an aperient. If flatus is not passing freely a small tablespoonful of turpentine should be added to the enema, or the passage of a rectal tube will relieve the patient. In the old days of perineal lithotomy a great Edinburgh lithotomist, when going round his wards, used to ask his dressers: "Does he wet well?" saying that if there was a free discharge of urine on the dressings the case was doing well. I feel much the same after abdominal operations with regard to the free passage of flatus *per anum*, and were it not that the old Anglo-Saxon word has quite gone out of fashion I should always ask my house surgeon: "Does the patient fart well?" for I look upon the free passage of flatus as one of the best signs of the satisfactory progress of abdominal cases.

Fortunately we now rarely see that most dreaded complication of abdominal operations, peritonitis. The absence of the passage of flatus *per anum*, a quickening pulse, and a declining temperature are ominous signs, and need the institution of active treatment. Every effort must be made to get the bowels to act, and 10-grain doses of calomel 1x should supplement the enemata, and if the desired result is obtained the cases usually do well. As remedies I have found belladonna, mercurius cor., bryonia, and colocynth the most useful. But should the peritonitis become acute I would then institute the method of treatment to which I shall refer in the second part of this paper.

The stitches are usually removed on the eighth day, and the patient allowed on the couch then, or even a day or two earlier if the case has done well. We have been inclined, I am sure, to keep our patients too strictly quiet and too long in bed after simple abdominal operations; but as the result of having too many patients and too few beds in the hospital to take them, we are learning really in what a short space of time we can often get a normal case in and out of the ward. Dr. Edwin Neatby has so successfully shown us what can be done in this way at the London Homœopathic Hospital that it is said of him that it will not be long before he is doing his hysterec-tomies in his out-patient room. Sir William Bennett learnt, accidentally as it were, from one of his cases the advantage of allowing fluids after operation. I learnt what it is possible for a patient to do after an operation from the following case. Just two years ago a sailor on a tramp steamer was admitted into my ward with a fæcal fistula of some months' standing, the result of a perforating wound of the abdomen. I excised the fistula, resected some 6 in. of the ileum, and performed an end-to-end anastomosis by simple suturing. On the night of the operation he became very excited and, getting out of the control of the nurse, got out of bed and wanted to go home. In spite of everything, except forcible restraint, which was thought to be inadvisable owing to his struggles, he could not be kept in bed. At this point I had to leave him as I was

going out of town. After two days of attempts at pacification, and expecting every moment to find signs of the anastomosis giving way, the brilliant thought occurred to Dr. Ham and the matron to find out what the man really wanted or would like. He asked to be allowed to sit in a chair, have some beer and smoke his pipe. He was permitted to do all this, and when I returned to the ward at the end of a week I found him doing exceedingly well, and he made an excellent recovery.

But we are not always so fortunate as to have time or opportunity to carefully prepare our patients or to have simple straightforward cases to operate on. Gastric and duodenal ulcers perforate, appendices rupture, intestines strangulate, when we have to do a rapid and immediate operation to save life. In these cases we have not only the local lesion to deal with, but the consequent shock, and in most cases the peritonitis. We must therefore make such preparations, on the lines which I have already indicated, as time allows for, and if the condition of the patient is critical combat the shock by rectal infusion or intravenous transfusion of normal saline solution. A patient that seems apparently moribund will sometimes rally sufficiently after a few pints of normal saline have been transfused to allow of a rapid operation being performed with some prospect of success. If no decided reaction follows an intravenous transfusion it may be considered that it is unwise to attempt any operation. In a recent desperately bad case of perforating gastric ulcer admitted to the Phillips Hospital, Bromley, Dr. Wynne Thomas kept up continuous intravenous transfusion all the while I was operating, and enabled the operation to be completed. Unfortunately, owing to the great severity of the case the patient died nine or ten hours later, but without the transfusion she must have died on the table.

It is in the surgical treatment of cases of diffuse septic peritonitis that the greatest strides have recently been made, and surgery owes a great debt to the late Dr. Murphy, of Chicago, for what he has done in this direction. Till quite recently a mortality of 80 per cent. was accepted

as the normal death-rate of acute septic peritonitis, and it was only about three years ago that Dr. Murphy startled the surgical world by stating, and demonstrating, that he had reduced the mortality of his cases to 10 per cent. Now it is obvious that any method holding out such a prospect as this needs our most serious attention.

Peritonitis is Nature's reaction against the invasion of micro-organisms, and as a protection for inhibiting the absorption of toxins she covers the intestines with lymph, danger lying in the absorption of toxins from the peritoneal cavity.

Murphy therefore advocated the gentlest possible handling of the peritoneum during operation, so as to avoid disturbing this protecting lymph. To do this the cause of the peritonitis must be sought for rapidly and with a minimum of disturbance of the parts; therefore there must be no mopping out of the fluid with sponges, no evisceration, no intra-peritoneal flushing out with fluids, antiseptic or sterilized. The peritoneal cavity should be opened as far as possible over the site of the suspected lesion, and when practicable that should be dealt with.

If there is much intestinal distension, I am sure it is better, as was originally suggested by Sir Frederick Treves, to bring the distended loop or loops outside the wound, open them, catch the contents in a porringer, and then close the loops, than to try and work amongst the distended intestinal coils. When we have done what we can for the original cause, the wound is not entirely closed, but split rubber tube drains with gauze wicks should be passed deeply in. An incision is next made above the pubes and a similar drain passed down to lowest part of the pelvis. If it is found that there is much purulent fluid in one or both flanks, drainage should be instituted in this region.

In 1900, Dr. George Ryerson Fowler, of Brooklyn, advocated what he called the postural post-operative treatment of diffuse septic peritonitis. He and others had shown that septic absorption takes place more rapidly from the diaphragmatic peritoneum than from any other area, and that absorption was least in the pelvic peritoneum. He therefore recommended that the head and trunk be well raised

in bed, and that the patient be placed practically in a semi-sitting posture, the intention being to limit the spread of infection by the gravitation of the infected fluid to the cavity of the pelvis, from which it can be removed by drainage. Those who adopted this found an immediate lessening of mortality. Murphy carried this further and put the patient in the sitting posture during the operation, thereby freeing the diaphragm.

But what I consider the most important suggestion of Murphy's was to secure the absorption of large quantities of normal saline solution through the rectum, which reverses the current in the lymphatics of the peritoneum, making the surface of that membrane a secreting instead of an absorbing one, thus preventing the absorption of septic products; aided by the posture of the patient and the action of the diaphragm, the fluid gravitates to the pelvis, where it is removed by the drain. Further, the absorption of the fluid from the rectum stimulates the heart and markedly increases the secretion of urine, which in diffuse septic peritonitis is always diminished.

Dr. la Conte, of Philadelphia, embodied Murphy's views in an interesting paper in the *Annals of Surgery*, vol. xliii., 1906.

The semi-sitting posture is now known as the Fowler position, and the continuous rectal infusion as the Murphy method.

The day after I had written the foregoing lines I was summoned in the evening to Tunbridge Wells to see a case of appendicitis with Dr. Grace, and as it so well illustrates the points I wish to emphasize and the procedure I am recommending should be adopted in these cases, I cannot do better than describe it. It was a curious coincidence that before going to Tunbridge Wells I had to see a patient in the south of London with what we believe to have been her thirty-second attack of recurrent appendicitis. Though the attack was sharp, the worst she had ever had, the peritonitis was local, and under the care of Dr. Hey she recovered nicely. At the end of a fortnight she was removed to a nursing home; and with ample time to carry out the suggestions made in the first part of this

paper she was operated on and an appendix, buried fast in dense adhesions, removed. Her bowels were moved the next day, she was allowed fluids freely, was moved from side to side as she desired, and was put in the semi-sitting posture at once, began solid food on the third day, was on the couch on the sixth, and the stitches were removed on the eighth. She had no increase of pulse-rate nor rise of temperature; the only medicine she took was a few doses of belladonna 3 during the first night. The case therefore ran a perfectly normal course.

Dr. Grace's case was of the other variety. A widow lady, aged 50, having had right iliac pain and discomfort for two days, took on her own initiative an aperient, which was followed by an action of the bowels, but with an increase in the pain and discomfort. The following day she sent for Dr. Grace, who found her suffering from acute appendicitis, with a suspicion of general peritonitis. Next day this suspicion became confirmed, and he asked me to come and see her with a view to operation. At the first glance one could see the patient was very ill, and examination showed the classical signs of general peritonitis, including rapid pulse, rigid and tympanitic abdomen. The patient was in so much pain and distress that she readily consented to an immediate operation. On opening the abdomen by an oblique incision over the seat of the appendix, pus free in the abdominal cavity escaped, which anyone who has had to do with cases of this kind knows to be a very ominous sign. On introducing the finger more pus welled up from the right iliac fossa. As the appendix was not readily found no prolonged search was made for it, but two rubber drainage-tubes were split, a wick of sterilized gauze put into them, and these were passed well into the right iliac fossa. A second incision was made just above the pubes and another wick drain inserted through it to the floor of the pelvis.

The wounds were not closed, but ample dressings applied. The patient was put back to bed in a semi-sitting posture. An ordinary douche can was tied to the foot of the bed, raised only a few inches above the level of the patient's pelvis. The tubing was passed up between the patient's

legs, and an attached nozzle passed into the rectum. The can was kept filled with warm normal saline solution. The object in view was to allow the solution to trickle slowly into the rectum, and to be absorbed there. If the flow is too free by reason of the vessel being too high, the patient will not retain the fluid and it will escape into the bed. The nurse received instructions to keep the fluid in the can warm by wrapping it in flannel, and as the contents diminished to frequently add fresh saline. The saline was commenced at 11.30 at night. The patient was seen next morning at 7.30 and it was most gratifying to see the very marked improvement. The anxious look was gone, the pulse had come down, the pain was insignificant, and the dressings were wet with the saline fluid which had passed into the peritoneal cavity and then been absorbed by the gauze drains. During the night she had absorbed over 3 pints of saline. Dr. Grace tells me that the patient is making a good recovery, though three weeks after the operation the abdominal wounds are not quite closed.

It is important to see that the fluid sinks in the vessel by absorption only. If it gives rise to distress and the desire for an evacuation of the bowels, the vessel is at too high a level. Sometimes the patient cannot bear the rectal tube, as we found in an old woman who was admitted to the London Homœopathic Hospital last December with acute septic peritonitis due to perforation of the descending colon from malignant disease. Here we found both fæces and pus in the peritoneal cavity. She was colotomized and drained. As she did not seem able to retain any of the rectal saline, our house surgeon, Dr. Purdom, passed under the breast a Southey's trocar, carrying a rubber tube from this to a glass measure filled with normal saline, and by syphonage kept up continuous intercellular transfusion, the patient absorbing by this method about 8 pints of fluid in the twenty-four hours. She actually recovered from the peritonitis, but died from exhaustion three weeks after the colotomy.

On another occasion we attached a small glass funnel to the trocar and tube and kept up transfusion under the breast by that means.

SCRAPS OF MEDICAL GYNÆCOLOGY.¹

BY EDWIN A. NEATBY, M.D.

Physician for Diseases of Women to the London Homœopathic Hospital.

ACTING on a suggestion from your Secretary, I have prepared a medical paper in preference to a surgical one. A paper with this scope should not require any apology before such an audience as the present if it be worthily executed. Conscious that this paper can make no such claim, I have chosen its title—firstly, that it may be fairly representative of its contents, and, secondly, to disarm criticism.

In the early years homœopathy won many laurels in the treatment of diseases of women. If its results are now relatively less striking, it is because so much of gynæcology, in the modern sense of the term, belongs to the domain of surgery. Nevertheless, quite a large proportion of the cases coming to the specialist in diseases of women are really medical, that is to say, though one or two local symptoms may point to the reproductive sphere, the fault is frequently a general one. Perhaps one of the most important duties of the gynæcologist is to divide the cases coming to him, and, in the medical ones, promptly to forget that he is a specialist and take up the *rôle* of physician.

A few cases, not too rigidly classified, will best illustrate the point, sufficiently elementary I grant you, which I have in my mind.

Let us take some examples where pain is prominent. Here I feel I owe an apology to you and to Dr. Cash Reed, the author of some learned papers on this subject. A girl, aged 17, was brought to me on January 27, 1896, for profuse, premature and painful menstruation. No abnormality was discovered by external abdominal or by rectal examination. I gave her *xanthoxylum* 1x, and she was relieved; so far so good; but why did this young girl have these discomforts attending a physiological function without obvious local

¹ Presented to the Liverpool Branch, April 9, 1908.

cause? It is hard to answer this simple question scientifically, and I will only try to do so in a roundabout way. What else was the child suffering from? She said she had "dyspepsia," which, being interpreted, meant in her case "pain in the epigastrium and chest, worse half an hour after evening dinner and after drinking tea"; the pain extended through to the dorsal region. The appetite was good, the bowels constipated, she had threadworms, the tongue was coated brown; she used to have "sand" in the urine. Next she complained of throbbing headaches, worse in the evening, better in the open air; these she attributed to her "dyspepsia." Her heart was healthy, but she had cold, damp hands and feet, without chilblains. There were a few more details in the pelvic sphere. The menstrual pain began a week before, was severe for the first two days and returned the last day or two of the period, which lasted six days; she had profuse, bland leucorrhœa, worse before each period.

The xanthoxylum, as I said, relieved, but it did not prevent. What was the matter with the girl? A pathological theory may be invented, which would say that her faulty digestion caused the retention of uric acid or other purins, or of autotoxins, of the nature of which we are even less informed. Or we may say the same thing in other words—that her chemistry had gone wrong, that her metabolism was faulty. Perhaps, ten years later, we should have examined her blood and found its coagulability was deficient, the hæmoglobin lessened, the differential leucocytic ratio disturbed. Whether such investigations can be carried out depends on the age we live in; whether theories deduced from them are helpful or not depends on the accuracy of the so-called facts and still more of the deduced theories. Such theories may give us real help in the general hygienic treatment of the whole class of such-like cases. But while our knowledge of drug pathogenesis of a scientific character remains so rudimentary, so far behind even our knowledge of the pathology of disease conditions, they will help us little in drug selection—especially in individualization. For this we are still dependent on symptomatic indications. My first

general or constitutional prescription was calc. carb. 30, night and morning. This she took until March 20 (with xanthoxylum at the periods).

At this stage the excess had ceased, the pain was less and there had been no attack of "dyspepsia." But the bowels were still constipated, the tongue coated at the back, and there had been an urticarial rash on the hands and legs. The next prescription was nux vom. 30, night and morning. In May the report was : Constipation very bad, painful defæcation from hard, large stools ; periods still too frequent, pain only slight three to four days before, and badly several hours at onset, but less severe than formerly. Headache better. I think it probable that nux was a faulty prescription, the kind of constipation and the kind of headache not seeming to indicate nux, as far as one can judge by imperfect notes. But I was probably quite as well aware twelve years ago of the indications for nux vom. as I am now, and there may have been elements in the case present to my mind at the time, but absent from the notes. The last prescription was sulph. 30, night and morning, and the last visit June 5. The last period was moderate in quantity, nearly correct to time ; there was no pain preceding it, that at the commencement was slight and was relieved at once by xanthoxylum. The headaches had been eliminated by a pair of spectacles ; the constipation was very much better and less painful. Her general condition seemed much better, the hands and feet were warm and dry. For the warmth of the extremities June may have been responsible ; for the dryness I give the credit to the treatment. I gave her saccharum lactis, and xanthoxylum for pain, telling her to come back if the improvement did not last ; she did not come again as a patient, but I know that she kept well, and I believe did not receive or require further treatment.

Miss X., aged 30, the superintendent of a rescue home, consulted me in January, 1904, for dysmenorrhœa. The pain was in the left iliac and lumbo-sacral regions, began twelve to twenty-four hours before the period, and was at its height on the second day. Uterus and ovaries normal,

except slight tenderness of the former. She had headaches, with heat of face and scalp, and her feet were cold; pulse 94 and palpitation; always felt worn out; nights were much disturbed by her duties; she slept badly even when not disturbed, and started much in sleep. The bowels were constipated.

In this case there was no displacement and no evidence of inflammation or of spasm. The pain meant—not that her pelvic viscera were diseased or even disordered, not more, at least, than the rest of her tissues and organs, and perhaps less than her nerve tissue. Her afferent nerves and her receptive centres were hyperæsthetic. Just what determined the location of her pain is not easy to say.

During five months of treatment she received *actea* 3x; sulphur 30, *ignatia* 1x, *natrum mur.* 6x, *arsenicum alb.* 6x.

At the end of that time she was better in all respects, and described herself as quite well. The menstrual pain was a negligible quantity, and the flow was less scanty than formerly. I thought her slightly anæmic, and in fact a year later she returned with pallor of skin and mucous membranes, breathlessness, hæmic bruits, spam-menorrhœa, aching of back in the sacral region, crying fits and hallucinations on awaking. There was free leucorrhœa, but no abnormal physical signs in the pelvis. I considered her anæmic and neurasthenic, and prescribed *puls.* 1x and crude *ferrum redact.*, together with the application of purple arc light to back and abdomen. In six weeks she seemed quite well, and I have heard from her from time to time during the past two years and three-quarters, when she told me how well she felt. This patient came, it may be remembered, for dysmenorrhœa; had she come for gastralgia, pleurodynia, or facial neuralgia the illness would have been practically the same, though the choice of remedies might have been different.

The next case is somewhat otherwise. A young married lady had been confined six months before she came from Manchester to consult me in January, 1896. She said "something was left behind" at the accouchement, and she had had "floodings" at her periods afterwards. She

had only been able to nurse six weeks. She had dull sacral pain at the periods, free yellow discharge becoming brown and acrid before the periods. She was losing flesh, and had more or less constant headaches.

Some years previously she was said to have "internal congestion," "shattered nerves," &c., and it was feared she would go out of her mind. Here was a pronounced neurotic (neurasthenic) woman. Besides this she had the following physical signs: The uterus was drawn to the left, low in the pelvis, of lessened mobility and retroflexed; the ovaries were prolapsed, both tubes felt thick but not tender. Here was a case, apparently, of mild puerperal infection. It had left the pelvic organs somewhat damaged, but the *morale* and nerve tone more so. I have known cases with slighter complaints of pain and fewer physical signs handed over to the surgeon. The question arose, Shall we treat the case medically or surgically? I regarded it as one of old perimetritic inflammation, in which Nature had practically effected a cure. The parts were still sensitive, as any scar tissue is apt to be. The uterus was not fixed, though its mobility was lessened. I decided to treat the case medicinally, with only some local tampons, mostly as a mental solatium. I gave a long course of palladium 3x. Her headache disappeared, the backache and menorrhagia did likewise. Ignatia completed the treatment. When I last heard from her she had had another child. Whether the retroflexion ever got better, either before or after the next baby, I do not know, and I do not think the patient cared.

My indications for palladium are: A neurasthenic condition in which the patient keeps up brightly when in company and is much exhausted afterwards, when all the pains are aggravated; subacute pelvic peritonitis, with right-sided pain and backache or bearing down. These pains are relieved by pressure. Sometimes a pain is described as extending from the umbilicus to the breasts. There are menorrhagia, xanthorrhœa, and vertical headache.

W. E., a single woman, aged 29, came to see me on June 14, 1903, for leucorrhœa of six months' duration, accompanied with dragging pain in the left side of the abdomen

and swelling, *i.e.*, distension of the same. The thick white discharge came on gradually, was attributed to an injury to her side, was worse in the afternoon and evening, and caused some soreness and irritation; worse at night. The menstrual flow was scanty, and accompanied by bearing down in the hypogastrium and vagina. She suffered from some epigastric pain after food, coated tongue, and flatulence.

Physical examination showed redness and tenderness of vulva and lower part of vagina. The uterus was small, retroverted and retroflexed, and tender.

She was directed to sit in hot water every night, to use a hydrastis suppository every second night, and to take lycopodium. These measures were followed by improvement in the xanthorrhœa, the vulvar and the hypogastric tenderness and swelling, and the constipation. The epigastric pain and pelvic dragging were no better, and she had also occasional vomiting, thirst for frequent sips, dry mouth, flatulence, and sour risings. In short, the *pelvic* symptoms, except the dragging, were ameliorated or cured. Iodide of arsenic 3x was ordered, and was followed by relief to the *gastric* symptoms, but the dragging had not improved. The uterus was therefore replaced and a small Hodge pessary was inserted; the *ars. iod.* was repeated. A return of leucorrhœa, constipation, cold, damp hands and feet was met by *sepia 12*. She was able to do without the pessary after a few months, and, with the exception of one short interval the following year, remained well. This case is given as an instance of the useful co-operation of local and general treatment. The pessary, in my judgment, hastened the recovery, and facilitated the action of the curative remedies by removing a mechanical obstacle to the uterine circulation.

Let us take another pain case—apparently spasmodic dysmenorrhœa in a fair, plump, amiable girl, aged 14 years and 8 months. This patient had very good general health; she had cold feet like the last patient, but dry instead of damp. She had no “*dyspepsia*,” no constipation or headaches, very slight leucorrhœa. She had pneumonia when

aged 8, and pain in the right iliac region, called peritonitis, when aged 6. The periods were moderate in quantity, and a week or ten days too soon. The order of events at the period was:—

(1) Premonitory look of pain on the face; her fair complexion looks yellowish; she looks dark and sunken.

(2) Pain in right iliac region, coming in paroxysms, not relieved by hot bottles or mustard poultices.

(3) Nausea and vomiting, worse from liquids. The vomiting occurs several times, and is followed by relief for a short time.

(4) Face flushes; grey or white area round lips and eyes; pupils dilated.

(5) Restlessness; drawing up of legs; lies with arms above head.

(6) Frequent desire to micturate.

In vain I treated period after period—chamomilla, nux vomica, belladonna and many others; then I descended to gelsemium ϕ , and was wrath because nux (in particular) from the homœopathic side and gelsemium from the anti-pathic side had failed me. Then I reached the lowest depths in prescribing—and was not ashamed! A morphia suppository came to my rescue, and I was thankful for this great gift of the gods in my extremity. It is sometimes a comfort to remember that one's duty is to be, *first*, a physician (or surgeon as the case may be), and then *after* (if at all) a "homœopath."

Though grateful to opium and, as I said, not ashamed, I was not exactly proud! All this time—because I did not like to examine a girl aged 14½—I had treated her in the dark. I now made a rectal examination. The uterus was low in the pelvis, completely retroverted, and the ovaries very readily felt, one on each side of the fundus, on the floor of Douglas's pouch. With the patient in the genu-pectoral position I pushed the uterus forward on two or three occasions, kept her off her back when lying, had a course of physical exercises carried out, and one fine day it stayed forwards and the pain passed away.

In November, 1898, a sensitive girl of 20 consulted me

for pain at the period. The pain came on with the flow, gradually at first and then in paroxysms—very severe and said to last nearly half an hour. It is surprising how long the minutes seem when one is racked with pain! The spasms of pain seated at the navel are typical: she is restless, rolls about, retches, and gradually gets better. The pain lasts from a few hours to a whole day. The pain is *not* relieved by heat or lying down, but is from brandy and from laudanum—not prescribed by me *this time*! A rectal examination showed the uterus and ovaries to be normal in size and situation. Secale 3x completely cured this case.

The last case I shall try your patience with is one of typical spasmodic dysmenorrhœa. The pain was so severe as to send the patient to bed each month. The lady was a secretary, in excellent health otherwise, with a good deal of sedentary work. Menstruation was scanty and delayed from one to two weeks. The uterus was found to be retroflexed and had a small myomatous nodule at one cornu; the right ovary was prolapsed. The case is introduced chiefly to refer to the virtues of plumbum in spasmodic dysmenorrhœa. This drug is indicated for the genus by its known spasmodic effect on involuntary muscle and for the individual by the symptom—"the flow lessens or ceases during the spasms of pain." This patient took it for four or five months with occasional intercurrent remedies, in dilutions of 12x to 3x. At the end of this time she had practically no pain and kept about her work with comfort all through the period.

About this time she developed enlarged cervical glands with a fluctuating opsonic index to the tubercle bacillus. These were reduced by calcarea, merc. vivus, and tuberculinum. At the end of nine months she discontinued treatment, quite well, having been five months without special treatment for the dysmenorrhœa, and yet remaining practically free from pain. The treatment did not in the slightest degree alter the position of the uterus and ovary.

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When I am treating a case medicinally I am always

devoutly thankful that I know something of homœopathy. Even the most lukewarm homœopathist would feel sadly bereft if deprived of his armamentarium of similars.

When I am writing a paper on medicinal therapeutics, a series of reflections occurs to me for which I will ask your indulgence while I inflict them upon you.

(1) If it is difficult to treat a case successfully, it is almost more difficult to record it instructively; one's records are so poor and one's reasons for prescribing, even when success follows, are so often unevident. The difficulty was apparent even to Hahnemann, for he left on record, if I am not mistaken, only one really detailed teaching example of the application of his principles—the celebrated bryonia case in the preface to the "*Materia Medica Pura*." When asked his reasons for such and such a prescription, he often replied: "Study the '*materia medica*.'" This leads easily to my second reflection—or, if you will, platitude:—

(2) The more of hard study of drug symptomatology we put into our treatment, the more in the way of solid curative results shall we get out of it. With such study we can never be done; of such knowledge we can never have enough. If we are more ready to blame our own knowledge of pharmacology than to blame homœopathy for our failures, we shall be the more anxious to remove the imperfections or limitations in it, which I cannot help thinking every honest student must acknowledge to exist.

(3) Of the limitations, some are inevitable and permanent:

(a) Man is mortal, and it requires a higher power than the law of similars to endue him with the gift of a new and unending life.

(b) The effects of disease and the toxic action of drugs are *not* NECESSARILY coextensive, and, as a fact, are *not* coextensive. The therapeutic effects of drugs have corresponding limitations. Both these are permanent, natural limitations, which we must accept.

(c) The limitations placed by our ignorance of knowledge already within our reach, and by the smallness of the sum total of existing knowledge, are remediable by study and by research.

(4) It is along the lines of original scientific research that the hopes of therapeutic advance must travel. The excellence of the results obtainable with only the symptomatic resources furnished by Hahnemann and his pupils—and they are excellent indeed if we use them aright—should not deter us from extending our knowledge along lines which his scientific mind would have been the first to advocate had he lived in our day.

Since many of us last faced our examiners, the whole science of hæmatology has developed. Have we developed our knowledge of the hæmatology of drugs in any degree approaching? Certainly not.

How the study of "urinology," if I may coin a word, has advanced during a similar period! What about our scientific knowledge of the effect of drugs on the renal secretion?

We know something of, say, blood coagulability in chilblains, in certain hæmorrhages, in nettle-rash, &c. The explanation of the action of lime by raising the coagulability in two of the states has been made—though not by our body. We know that pulsatilla often cures chilblains, and that apis, rhus, and primula do the same for nettle-rash. Shall we not set to work to find out if these drugs also influence blood coagulability?

(5) I believe a rational explanation of homœopathy is wanted to send it forth on a career of triumph.

Of the truth of the principle, our orthodox brethren are unwittingly, and perhaps unwillingly, furnishing new and tangible or ponderable proofs almost every year. It is for us to show the best means of applying the principle. Valid, demonstrable *explanations*—such, for example, as the opsonic estimations in a variety of diseases furnish—would enhance our own confidence in treating, and facilitate the teaching of homœopathy to the sceptical as nothing else would do. It is comparatively easy to *treat* without an explanation, but it is excessively difficult to teach without one.

There is room for the most ardent and scientific workers in our body—such workers as Liverpool has been most forward in supplying in the past. Such workers would win themselves undying fame, would furnish keener weapons for

themselves and their brethren in the daily struggle with disease, and merit the gratitude of suffering humanity. And those of us who are too old for much new work can still do ourselves credit and bring honour to our cause by an honest attempt to adopt drug pathogenesis as we may know it at its best, to pathology as it varies from decade to decade.

Further, gentlemen, if we want to advance homœopathy, I do not think we should be ashamed to explain its principles and merits in a judicious manner to our patients and friends. They alone furnish the "sinews of war" for teaching and for research.

OBITUARY.

ALFRED CROSBY POPE.

DR. POPE was a distinguished member of the Society in the seventies and eighties. He was elected a member in 1862, Vice-president in the years 1873-4, and President in the year 1881. He had retired from practice for some years, and died at Margate on March 26 last. A full obituary notice of Dr. Pope appears in the May number of the *British Homœopathic Review*. At the meeting of the Society in April a vote of condolence was passed and forwarded to Mrs. Pope.

Dr. Pope was a homœopath for the whole of his professional life, having fought the battle for principle with the examination authorities before becoming qualified, and continued it afterwards as practitioner and editor. He received the signal honour of the Presidentship of the International Homœopathic Congress, held in London in 1896, and the occupancy of this presidential chair was his last public act in defence of the cause.

EDWARD MONSON MADDEN.

THE Society has sustained a severe loss in the death of Dr. Madden, of Bromley, Kent. Dr. Madden was born in 1851, and died on May 18 last. He was elected a member of the Society in 1876, and sat on the Council in 1894 and again in 1901-2. He was Vice-president in 1892-3, and President in 1896-7. He was a very regular attendant at the meetings, almost always contributing to the discussions. He had read a number of papers. In his public relationship to homœopathy Dr. Madden thoroughly believed in the reconciliation of the principle of *similia similibus curentur* with established scientific truth, and a number of his literary efforts were made in the endeavour to make this clear. He also held strong views on the dose question, believing that, as a general rule, other things being equal, it was better to give a dose that was tangible in preference to the higher attenuations often preferred. Madden always looked out for the facts, however. His knowledge of his profession, his honesty of conviction and purpose, always commanded the esteem and respect of his colleagues and friends.

MINUTES OF THE SOCIETY MEETINGS.

THE SEVENTH MEETING of the Session 1907-8 of the British Homœopathic Society was held at the London Homœopathic Hospital on Thursday, April 2, 1908, at 8 o'clock, Dr. Spiers Alexander (President) in the chair.

Members Present.—Dr. Beale, Dr. Blackley, Dr. Hervey Bodman, Dr. Dyce Brown, Dr. Burford, Dr. Clarke, Dr. George Clifton, Dr. Cooper, Dr. Cronin, Dr. Roberson Day, Dr. Deane, Dr. Epps, Dr. Goldsbrough, Dr. Grace, Dr. Vincent Green, Dr. Granville Hey, Dr. Grantham Hill, Dr. Reed Hill, Dr. Jagielski, Dr. Johnstone, Dr. Macnish, Dr. Madden, Dr. Murray, Dr. H. Nankivell, Dr. F. Nankivell, Dr. J. C. Powell, Dr. W. P. Purdom, Dr. Sandberg, Dr. Searson, Mr. Knox Shaw, Dr. Stonham, Dr. Wynne Thomas, Mr. Dudley Wright. Dr. F. A. Watkins sent an apology for absence.

Visitors.—Dr. Gustav Sirsch, of Vienna; Dr. Burton, of Detroit; and Dr. Payne, of the London Homœopathic Hospital.

SECTION OF GENERAL MEDICINE AND PATHOLOGY.

Under the auspices of this Section a paper was read by Dr. Deane on behalf of Dr. Byres Moir, who was prevented from attending by illness, entitled "Arterial Blood-pressure." The paper was followed by a discussion, also by a demonstration by Mr. Hawkesley, of Oxford Street, of various instruments used in estimating the blood-pressure. This paper, with the discussion, appears on pp. 265 and 281 of this issue of the JOURNAL.

The EIGHTH MEETING of the Session 1907-8 was held on Thursday, May 7, 1908, at 8 o'clock, Dr. Spiers Alexander (President) in the chair. There were also present: Dr. Blackley, Dr. Burford, Dr. Clarke, Dr. Cooper, Dr. Roberson Day, Dr. Goldsbrough, Dr. Clifton Harris, Dr. Granville Hey, Dr. Macnish, Dr. F. Nankivell, Dr. Neild, Dr. W. P. Purdom, Mr. Knox Shaw, Dr. Stonham, Dr. Wynne Thomas, and Dr. C. E. Wheeler. Dr. Williams, of Agra, India, and Dr. Payne, of the London Homœopathic Hospital, were announced as visitors. Dr. Dyce Brown sent an apology for absence.

SECTION OF MATERIA MEDICA AND THERAPEUTICS.

Dr. T. G. Stonham read a paper on "Tellurium," which was followed by a discussion, in which the following Fellows and members took part: the President, Dr. Clarke, Dr. Blackley and Dr. Macnish. Dr. Stonham replied. This paper, with the discussion, will appear in the October number of the Journal.

Dr. Roberson Day also read a paper entitled "Derelict Cases," which was discussed by Dr. Macnish, Dr. Goldsbrough, Dr. Clarke, Dr. Stonham, Dr. Burford and Dr. Cooper. This paper, with the discussion, will appear in the October number of the Journal.

The NINTH MEETING of the Session 1907-8 was held on Thursday, June 4, 1908, at 8 o'clock, Dr. Macnish (Vice-president) in the chair. There were also present: Dr. Blackley, Dr. Roberson Day, Dr. Epps, Dr. Goldsbrough, Dr. Granville Hey, Dr. Reed Hill, Dr. Johnstone, Dr. Byres Moir, Dr. Neatby, Dr. Powell, Mr. Knox Shaw and Mr. Dudley Wright. Dr. Payne was present as a visitor.

THE DEATH OF DR. MADDEN.

Dr. Macnish alluded in feeling terms to the great loss the Society had sustained in the death of Dr. Madden. On the motion of Dr. Blackley, seconded by Dr. Goldsbrough, a vote of sympathy and condolence was forwarded to Mrs. Madden, indicating especially the very high esteem in which Dr. Madden was held. Dr. Byres Moir spoke in favour of the resolution.

SECTION OF SURGERY AND GYNÆCOLOGY.

Under the auspices of this Section the evening was devoted to an inspection of a series of cases exhibited by various members, followed by a discussion of various points in diagnosis, pathology and treatment. Particulars of these cases and the discussion will appear in the October number of the Journal.

SUMMARY OF PHARMACODYNAMICS AND THERAPEUTICS.

*Extracted from Exchange Journals by the Editor, in collaboration
with J. Galley Blackley, M.B.*

Adrenalin in Exophthalmic Goitre.—Graves's disease is rare in the male, and when it occurs is very intractable to treatment. Dr. C. E. Wheeler records a case in a man, aged 41, however, in which all the classical symptoms were present, namely exophthalmos, a pulse of 144, tremors, flushes, sweats, loss of 5 stones in weight, and inability to work. He came in June, 1907, and was treated until December. He received first adrenalin chlor. 6, n. et m. and thyroidin 12 once a week. In fourteen days he felt better, and the pulse was 108. On July 16 the pulse was 117. Thyroid 3x twice a week was tried, and adrenalin chlor. 3 twice daily. Little change ensued. Adrenalin $\frac{1}{1000}$ was applied locally to the throat, and calc. fluor. 3 given internally; this treatment was continued for a month. He had now lost his flushings and sweats, the tremor was less, and pulse 108, but the exophthalmos was unchanged. On October 1 adrenalin 3x was given twice a week in 2 gr. doses. From that time he improved steadily. At the time of writing he had gained over 3 stones, and had been hard at work since December. The pulse goes to over 100 after work, but in the mornings is 88. The tremor is less, and exophthalmos less. (*Homœopathic World*, May, p. 215.)—Ed.

Anaphylaxy.—When an organism absorbs, on a given date, a certain dose of poison and survives, its further resistance to the same poison may either be identical or modified, and in the latter case the animal may exhibit a higher or lower sensitiveness to the poison in question.

The phenomenon of tolerance of poisons, to which physiologists have given the name of *mithridatization*, has long been known, but the inverse phenomenon, that of a growing sensibility to toxic doses, has passed unperceived. This is probably owing to the fact

that it only applies to a very narrow and special class of poisons. This lessening of the resistance to poisons was discovered by Professor Richet and named by him *anaphylaxis*.

It is seen with great precision in the case of the poison of the *Actiniæ*, or sea anemones. This poison is extracted from the nematocystic cells of the *Actiniæ*—a microscopic apparatus for secretion and inoculation—by means of which the sea anemone, fixed to the rock, captures such prey as comes within its range. Richet calls the poison *congestine* because of the intense congestion which it produces in the abdominal viscera, especially the intestine. (Other and similar poisons may be extracted from the bodies of many marine animals, as, for example, the mussel, which furnishes another congestine which has been christened *mytilo-congestine*.) After careful manipulation this congestine has been obtained in a desiccated form, and can be utilized for intravenous injection after solution in distilled water. Dogs will survive a dose of this poison in the proportion of 0.075 grm. per kilogramme of body-weight, but a larger dose is invariably fatal. In a dose of over 0.08 grm., for example, there is first of all a period of two or three hours of prostration, then abundant diarrhœa with tenesmus, and considerable lowering of the temperature; the diarrhœa then ceases, leaving the animal very feeble, but it returns after a time, and the stools are mixed with blood. The hypothermia becomes accentuated, and the animal dies in about three days from the time of the injection of the fatal dose of *actino-congestine*.

If the dose is smaller, say 0.05 grm., the animal remains ill for two or three days and loses flesh, but there is no blood in the fæces nor any albuminuria. In about ten days the animal has recovered, having regained the lost weight and eating as usual.

If now we take one of the dogs so cured after a first intoxication by *actino-congestine*, and apparently absolutely protected, and inject a quantity equal to only one-twentieth of the original dose (i.e., 2.5 mg.), we obtain at the end of even a few seconds extremely grave symptoms of intoxication, viz., repeated and intense vomiting (sometimes accompanied by blood), dyspnœa with marked lowering of arterial pressure, and, lastly, a state of depression of the cerebrospinal system going on to complete paraplegia, with blindness and general insensibility of the animal. The small dose, in fact, which would have been hardly noticed by a normal animal, creates a state of hypersensitiveness to the poison, and this state M. Richet calls *anaphylaxis*. The dose of 2 mg. is not generally fatal, but with a dose of 1 cg., which is still seven times less than the primitive dose, death invariably results. The dog

remains extended on his side, *paraplegic*, the hypothermia increases, and he dies four or five hours after the injection.

Anaphylaxis is not, however, a permanent phenomenon, and its duration varies according to the poison employed; thus, with mytilo-congestine (from mussels), it begins to disappear with the thirty-second day, whereas with actino-congestine it has its maximum on the fortieth day, but is still present at the end of two months and a half. A fact of the greatest interest with regard to mytilo-congestine is that to this period of anaphylaxis succeeds one of *prophylaxis*, or immunity. It will be interesting to know if this is the case with anaphylaxis provoked by the other poisons in the same category, by serpent-venoms and toxalbumins.

Another equally remarkable character possessed by this phenomenon is that it requires a certain period of incubation. Thus the anaphylaxis of actino-congestine, which has its maximum about the fortieth day, has not been properly established during the ten or fifteen days previously, and this eliminates at once the *a priori* idea of cumulative effect.

The latest experiments of M. Richet have shown that the serum of *anaphylactized* animals contains the substance which provokes the anaphylaxis, and that this serum injected into a dog which is totally insusceptible provokes an anaphylaxis which is *immediate*. Nevertheless, this serum is not toxic in itself, from which we conclude that the substance which causes anaphylaxis is not a toxin, but a *toxogenine*, that is, a substance furnishing a toxin by its reaction with congestine.

A question which presents itself at once is, Do we find the effects of anaphylaxis in the human subject? A study of the reactions of children to therapeutic sera almost justifies one in giving an affirmative answer. Piquet and Fick, of Vienna, have described a "serum disease" (*Serumkrankheit*) following upon the injection of repeated doses of serum.

In France, Lesné has shown that a considerable difference exists in the reactions which follow a first and a second injection of serum in children; the urticarial fever and local reaction appear more rapidly after the second injection and still more quickly with the third, even when there has been no reaction with the first. (E. Marck, *L'Art Médical*, May, 1908, p. 357.)—J. G. B.

Belladonna in Acute Suppurative Inflammations.—In an interesting paper, Dr. R. M. le H. Cooper draws attention afresh to the use of belladonna in acute inflammations, only in this instance to the local application of the tincture or extract in

glycerine. The cases cited appeared all to be going on to rapid suppuration, and they included poisoned wound in the palm, cellulitis, abscess of the breast, gumboil, appendicitis. They all recovered quickly without operation, with most satisfactory results. The belladonna was freely applied. Dr. Cooper has never seen any poisonous effects from this treatment, and he thinks the action is homœopathic. (*Homœopathic World*, April, p. 153.)—Ed.

Boric Acid a Cause of Exfoliating Dermatitis.—The following notes render it probable that boric acid, in certain predisposed individuals, has a similar effect to borax in producing dermatitis.

Mr. J. C., aged 55, mechanical engineer, a sufferer for many years previously from chronic prostatitis and occasional intercurrent attacks of cystitis, had been in the habit of drinking freely at times of barley water or lemonade containing boric acid, the latter employed as a vesical antiseptic and to keep the urine acid.

On May 12, 1906, the patient came to Dr. Blackley complaining of a skin eruption, and showed symmetrical patches of what appeared to be dysidrosis in the palms of both hands, the patches being about the size of a half-crown piece. There was also slight but very irritable erythema on both shins. Although aware that the patient was using boric acid in very tangible quantity, Dr. Blackley did not entertain the idea of there being any necessary connection between it and the skin rash, and merely prescribed ustilago internally.

Three weeks later the patient came again, stating that the bladder symptoms were much better, but that his chief trouble now was the condition of the skin. The latter was cracking and peeling freely, both in the palms of the hands and on the soles of the feet. Graphites 6 gr. i.t.d. was prescribed.

Six months later the following interesting notes were put together by the patient, a highly intelligent man:—

“The trouble increased gradually, until at length the whole of the skin peeled off, including the thick skin of the palms of the hands and soles of the feet, which came off in very large flakes, and as the new skin grew it also peeled off as soon as formed; this process was repeated three or four times, and extended to the finger-nails and toe-nails, every one of which came away, rendering the fingers quite useless for a time. Whilst the feet were skinning I could neither put them to the ground nor wear boots and shoes.

"After the skin trouble had continued for some time I left off taking boric acid, and the skin gradually got better. I again tried to use boric acid, but only to find there was a renewal of the skin trouble, beginning, as before, with 'water-blisters' under the skin of the palms of the hands and soles of the feet. This was repeated several times, until I left off taking boric acid altogether; after this the trouble ceased, and the new nails began to grow, and up to the present time (January 27, 1907) I have had no further trouble, and the new nails have just reached the ends of the fingers.

"Whilst the skin trouble was at its worst, the bladder irritation also increased in intensity and quite unnerved me, so that I was obliged to take to my bed and remain there for some weeks."

When the patient next presented himself, Dr. Blackley advised him to use, when necessary, helmitol in place of boric acid as a means of keeping the urine from becoming alkaline, and he has had no further trouble with the skin.

The chief point of interest in connection with the above notes is the fact that the patient had used boric acid at intervals for years without any untoward effect. Seeing also the extensive use made of boric acid lotions for washing out cavities and hollow viscera, it seems surprising that evidence of its toxic effects should be so largely wanting. (*British Homœopathic Review*, 1908, p. 338.)—ED.

Chionanthus in Abdominal Pain.—Dr. C. E. Wheeler mentions a case of paroxysmal abdominal pain of several years standing which yielded to a great extent to chionanthus ϕ , after the usual remedies (berberis, chelidon, iris) had been tried without benefit. The patient was not cured but very much ameliorated by the remedy. (*Homœopathic World*, May, p. 214.)—ED.

Citrus Decumana (Grape Fruit).—Dr. Ibershoff, of Cleveland, had a patient suffering from catarrhal otitis, with partial deafness, who had made it a practice for some time to begin the morning meal with grape fruit. She complained that this was invariably followed by head noises and ringing in the ears, which persisted for some time. When the grape fruit was omitted no ear symptoms were noticed. The patient was not imaginative or hysterical. Other cases were found by Dr. Ibershoff as due to the same cause. Mrs. R. K. P., aged 43, was under treatment in like manner, but had never complained of tinnitus, except after ex-

posure to cold and damp. Grape fruit became a daily breakfast diet and was always followed by ringing or hissing in the ears. The symptoms ceased when the fruit was ceased. E. M., a healthy domestic, aged 20, states that every time she eats those "oranges" she experiences severe head noises and a sensation of pressure in the temporal region, as if the sides of the head were squeezed. M. S., a young woman in good health, except chronic catarrhal otitis, states that her tinnitus is always aggravated by eating grape fruit. (*Cleveland Medical and Surgical Reporter*, May, 1908, p. 190.)—Ed.

Fluoroform. *A Specific for Whooping-cough.*—M. Paul L. Tessier recommends a 2·8 per cent. watery solution of fluoroform in the treatment of whooping-cough. By the end of the first week the illness has quite lost any grave character, and cure follows at the end of a month; broncho-pneumonia never supervenes. The doses recommended are as follow: For children under 2 years of age, on the first day, one drop after each paroxysm; on the second day, two drops; on the third day, three drops, &c., with a limit of 100 drops per day. Between 2 and 4 years of age, ten drops four times a day, with a limit of 154 drops (10 grm.). In the adult one may give as much as 30 grm. per day, given in water or milk. (*L'Art Médical*, May, 1908, p. 379.)—J. G. B.

Helianthus Annuus. *Poisoning.*—Dr. Eduardo Fournias, in the course of an article in which he details the pathogenesis and therapeutic uses of the sunflower, gives the following case of poisoning by the seeds of this plant: A Russian boy, aged 9, the day before he was seen had eaten a quantity of sunflower seeds he had picked off the growing plant. He was suffering from a distressing nausea and vomiting of a greenish substance. The face was flushed, the tongue dry and morbidly red, with raised papillæ, the bowels inactive, and there was some febrile disturbance. The appetite was lost for two days after this, and a critical green fermented stool with tenesmus ended the case. The family of this boy were in the habit of eating sunflower seeds, and in the case of some members it was always followed by nausea and vomiting. (*Homœopathic Recorder*, April 15, 1908.)—Ed.

Kali Chloratum. *Poisoning.*—Dr. Hans Hirschfield records a case of fatal poisoning by potassium chlorate in which some important new changes in the white corpuscles of the blood were observed. The patient was a young woman, aged 19, who had

taken 20 grm. of potassium chlorate on June 4. Two days later she was admitted to hospital showing a bluish-grey tinge of the skin with slightly icteric conjunctivæ and scanty dark brown urine containing large quantities of methæmoglobin. Venesection and transfusion of defibrinated blood were performed with some good effect. In the next few days very little urine was passed, and œdema, vomiting, and signs of cardiac weakness rapidly developed. The face became very pale. The patient died on June 13, nine days after taking the poison. As regards the condition of the blood the most severe changes were observed on the day of admission, i.e., the third day after the poisoning. A large proportion of the erythrocytes showed a more or less advanced decolorization of the stroma, and small pigmented bodies containing methæmoglobin appeared within them. They were observed either singly or in groups in many erythrocytes, sometimes occupying the centre of the corpuscle, and at other times lying near the periphery. Sometimes they were found free in the blood-plasma. Three days later the number of degenerating red cells was much reduced, and on the next day they had disappeared. The number of erythrocytes was then found to be 1,500,000 per cubic millimetre and nucleated red corpuscles were present. The number of leucocytes when the case was first seen was 30,000 per cubic millimetre, while four days later they had fallen to 15,000. The most noticeable increase was found to be in the polymorpho-nuclear leucocytes, but myelocytes were also seen. Some of the leucocytes contained the remains of degenerate erythrocytes, others showed variations in their neutrophile granulations, which may be in clumps in some parts, leaving gaps in others. A very noticeable form was also neutrophile cells with several spherical nuclei. Other cells were seen identical with the pseudo-leucocytes of Ehrlich, due to breaking up of the polymorpho-nuclear cells. (*Lancet*, October 26, 1907, from the *Allgemeine medizinische Centralzeitung* of July 6, 1907.)—Ed.

Kali Chloratum in Chronic Nephritis.—Dr. Charles E. Wheeler calls special attention to the value of the chlorate of potash in chronic nephritis, which he has given in the 2x to 6th dilutions with benefit, on pathological lines. The drug was not the only one used in the cases, but Dr. Wheeler *underlines* it specially. (*Homœopathic World*, May, p. 213.)—Ed.

Lycopodium in Asthma.—The following case of chronic asthma, relieved by lycopodium, illustrates the necessity in

homœopathic prescribing of considering the patient rather than the disease, and the value of a knowledge of the characteristic symptoms of the medicine; also, the necessity for high attenuation in the case of *lycopodium* :—

Miss C., aged 36, a native of Peru, had suffered from asthma many years, and tried many climes for relief. She was seen by Dr. W. J. Hawkes, of Los Angeles, California, on August 5, 1907, at 8 p.m. She was sitting up in bed, leaning forward, gasping for breath, with paroxysms of severe coughing, her face purplish, and anguish in her expression. The following history was given: At 18, while warm and perspiring, she stripped and plunged into a river; she remained in the water two or three hours and became completely chilled. This was the day after the close of a menstrual period; the menses had previously been regular. The period did not reappear for three or four months, and then and since very painfully, especially three days before the flow was established, which has been also dark and clotted. The first attack of asthma occurred seven months after the bathing episode, and during the past few months they have been coincident with the menstrual period, or greatly aggravated at that time. The asthma was greatly worse from 4 to 6 a.m. and 4 to 8 p.m. Other symptoms were—severe pains in the renal region, undue retention of urine, relief of which gave ease to the pain, a reddish sandy sediment in the urine, pain, great distension of the abdomen, with noise and rumbling, a sense of satiety and fullness followed very little food, chronic constipation.

She received two pellets of *lycopodium* on the tongue, and some more of a solution of the same dissolved in water fifteen minutes later. In case no relief was experienced, some *arsenicum* was left with the nurse for use as directed, but this was not given. Next morning there was decided relief, especially of the symptoms other than the asthma. One dose of *lycopodium* was given at bedtime. She slept all night that night. She made rapid improvement, being able to go out on the 10th. The first dose of *lycopodium* was the first dilution, that dissolved in water was the thirtieth. The subsequent history of case was as follows: Menses appeared on August 31. Instead of an attack of asthma she had extreme pain and severe headache. The flow was normal, but more scanty; bad taste in mouth, loathing of food, especially greasy food. She craved fresh air; *pulsatilla* was now given. At the end of September she was practically well, except a teasing cough. (*North American Journal of Homœopathy*, March, 1908, p. 115.)

Mendeleéf's Periodic Law. *Aurum, Mercury, Plumbum.*—Dr. P. W. Shedd draws attention to the relative closeness of aurum, mercury and lead in Mendeleéf's series, and shows that they are allied with relative similarity in their pathogeneses, thus indicating that the Mendeleéf law of relation is a good way for comparing drugs in the homœopathic materia medica. (*The Cleveland Medical and Surgical Reporter*, April, p. 132.)—Ed.

Opoththerapy in Chronic Nephritis.—Dr. François Villard reports a case of chronic nephritis with intense albuminuria, oliguria, œdema and general cachexia which had existed for five years. The patient was rapidly cured after taking fresh pig's kidney administered twice a day. The viscus was taken raw after being cut into small pieces, and was swallowed in a little thin soup. The patient is now in excellent health, the albuminuria having rapidly disappeared, and that without his adopting any special regimen. (*L'Art Médical*, May, 1908, p. 380.)—J. G. B.

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THREE CASES OF CHRONIC HEART DISEASE.¹

BY A. E. HAWKES, M.D.

MR. PRESIDENT AND GENTLEMEN,—I proceed to ask your attention to the following cases :—

I.

M. M., aged 33, whose death will have to be recorded, had been an invalid for many years. Nearly thirteen years ago she had rheumatic fever, and was then led to believe by myself that her heart had escaped complications, with how much truth cannot be said after such a lapse of time. A subsequent attack—perhaps more than one—let her off less lightly, and for years attacks of tachycardia, œdema pedum, and more or less suppression of urine have needed attention, and kept her friends in a state of chronic anxiety on her behalf.

Organic chemistry has been defined as “the history of the wanderings of carbon,” and in my own cases the treat-

¹ Presented to the Liverpool Branch, March 12, 1908.

ment of valvular disease, accompanied by dropsy, may be almost summed up by the word foxglove. With the aid of the tincture, infusion, Nativelle's preparation of the alkaloid, and such means as rest and appropriate diet, the various symptoms have been relieved and the downward tendency for the time averted. At Christmas time, 1907, this patient was walking about during the bitterly cold weather, and on January 10 the writer was sent for, and the attendance did not cease until the date of her death—March 8, 1908.

Presently there came a time when Nativelle's granules no longer controlled the tachycardia, nor did they, as they almost always had done, augment the quantity of urine. Trousseau's wine, which I must assure you is only resorted to by myself in extreme cases, was equally ineffectual.

The face became cyanosed, the pulse almost imperceptible, the urine still more concentrated and albuminous, and the œdema of the legs and feet more and more threatening. In the other cases about to be referred to, excellent results were obtained by the judicious employment of paracentesis thoracis.

Here there was no pleural fluid to draw off, but on Sunday evening, March 2, four punctures were made in each ankle by means of a small trocar, all necessary aseptic precautions having been adopted.

From 8 p.m. on Sunday to the same time on Monday 1 gallon of serum escaped, and a similar quantity was obtained during the following twenty-four hours.

After that the flow ceased for fourteen hours, but it again started, and during the four remaining days of the patient's life some 2 pints exuded *per diem*, bringing the total quantity up to 3 gallons or so. During the week her face brightened, her pulse returned, and she seemed better, but the urine was diminished to about 10 oz. *per diem*.

If it be suggested that the drain was too much, I can only reply that no good effect attended the temporary cessation of the flux, and that elevation of the feet produced distress; or, to be more correct, the patient could lie but little better than before the draining. The specific gravity of the serum was 1010.

Attempts were made to make up for this great loss by administering egg albumen, for Waller,¹ referring to these fluids, speaks of them as highly albuminous solutions, containing nearly as much proteid as is contained in ordinary white of egg. She died, as I have said, on March 8 this year, her life having been prolonged through many critical attacks, each of which left her worse than before its advent.

At the *post-mortem*, the spleen was rather larger than usual. Some œdema remained in the right leg, the liver was characteristically nutmeg-like, the kidneys were hard and contracted, and the heart generally much enlarged.

In slightly more detail it may be stated that the right ventricle was somewhat hypertrophied and much dilated. A large *ante-mortem* clot nearly filled the lumen of the pulmonary artery—a very rare condition. The lung vessels were probably in the same condition, as the pathological expert who examined the structures suggested. The right auricle was not unusual, but there was slight bicuspid stenosis. The left auricle was much dilated and contained two *ante-mortem* clots, which had assumed a ball valve shape. There was marked mitral stenosis, the orifice hardly admitting one finger. The left ventricle was not much hypertrophied.

II.

The second case is that of a gentleman, aged 63, living near St. Helens. I attended his mother, who lived to an advanced age, viz., 80, but she did not suffer from rheumatism nor a heart affection, nor did his father, who died at the age of 70.

He himself had rheumatic fever twenty-five years ago, but although he suffered from palpitation therewith, he was not told of any bruit by Dr. Hitchman. He has had much anxiety and has worked hard.

Two years and four months ago he broke down after a holiday at Matlock, but he does not admit that he walked over-much there. Between that time and the present much

¹ Waller's "Physiology."

has happened, and such happenings must be dealt with in some detail. During these two years or so he has had to take great care of himself, and two years ago last month it was decided in consultation that his business activities were nearly over.

At times oedema of the feet, tachycardia, and suppression of urine called for digitalin, a very short course of one-fourth of a granule for a dose usually sufficing. On one occasion considerable strangury occurred, which was not relieved until cantharis was resorted to. This symptom he attributed to the digitalin.

Last August the oedema recurred, and it was noticed that he was suffering from pleural effusion. How far this was due to pleuritis cannot be determined. He did not have much pain, but he did suffer from cough and dyspnoea. On August 23, 1907, this dyspnoea indicated paracentesis thoracis, which afforded much relief. It was repeated during the next month—September 3. On both occasions 49 oz. of fluid were abstracted, to his great relief. The dyspnoea was lessened and the oedema of the extremities was reduced to a minimum.

Twice in January, on the 23rd (55 oz.) and on the 31st (60 oz.), the same expedient was resorted to, and happily he has required but little attention since. He was seen on March 8; there was a curious whiff—nothing more—at the lower sternal area, and the sharply accentuated second sound could be heard in almost all areas.

The systolic whiff referred to was heard at the apex and in the axillary region.

The patient had an attack of tachycardia during the examination, and it is to be feared that the pulse now never approaches a normal frequency. There was, on the occasion referred to, no oedema of the feet, and not much cough; the urine amounted to 50 oz. *per diem* in quantity, and the patient was free from suffering except such as must of necessity accompany confinement to the couch of an active business man. The improvement is the more notable when it is recalled that from January 27 to 30 he only passed 17, 15, 16, and 16 oz. of urine *per diem*.

It must be remarked that our usual cardiac remedies, such as spigelia, naja, arsenicum iod., digitalis in dilution, and so on, had had a fair trial prior to the advent of, and even during, the presence of the dropsy. It is only *in extremis* that strychnia $\frac{1}{20}$ gr., inf. digital., B.P.; Parke Davis's ext. dig., and, in very grave emergencies, Trousseau's wine are called to my aid.

It should have been stated that on one occasion last year the scrotum was punctured with very good effect.

III.

I place on record one other case in less detail. Last autumn I had occasion to see a gentleman well over 60 years of age, who was suffering from weak heart and dropsy.

He had been known to me for many years, but he lived at some distance, and I had lost sight of him.

He stated that for years his pulse had been intermittent, that he had influenza a year ago, and that in June, 1907, he began to suffer from dropsy. At the time I refer to, his apex beat was a little outside the nipple line, the pulse was regular, and its frequency was 84 per minute.

The first sound was but slightly prolonged at the apex, and the second sound was somewhat muffled. There was some cyanosis; he was passing very little urine, which was albuminous, and he had been taking canth. for the scanty urine. There were also some signs of hydrothorax.

He was expectorating a good deal of mucus, necessitating much cough. The legs had been punctured for the cedema, and the patient seemed very ill. On the first and second occasion I myself used the trocar, drawing off a good deal of fluid—about 40 oz.—from the pleural cavity.

This afforded him much relief, but the fluid soon accumulated again, and Dr. James Hawkes on the next occasion tapped one pleural cavity, drawing off 5 pints of fluid, and the next day he obtained 7 oz. from the other side. On the next day but one he obtained 3 pints from the same side (the left).

In another two days he obtained a pint from the left side, and two days afterwards 14 oz. from the right side.

It required some hardihood on the patient's part to undergo all this, but when it is stated that in the midst of it all, with the legs swollen and bandaged, his ears blue, and his pulse weak and uncertain, he insisted on going to London and Cambridge to conduct certain examinations, you will have some idea of his pluck. He went provided with some "vin Trousseau," as he liked to call the mixture, and after one or two bad attacks got safely back—to our great relief, although we had provided ourselves with a letter from him, absolving us from all responsibility regarding his hazardous journey. It may be of interest to note that the effect of the tapplings was to greatly improve the appetite as well as to diminish the bronchorrhœa.

On the last occasion of my seeing him—on behalf of my elder son—there was no œdema of the extremities, he was fairly vigorous in body—his mind was never otherwise—and he was bidding fair to conduct many other examinations in the languages to which he had devoted his remarkable powers. His urine was free from albumin, and what we may term with some justice late compensation seemed to be fairly established.

POSTSCRIPTUM.—I heard some time after these cases were written down that this patient insisted, against the wishes of friends, on embarking on another examining tour, and that he died after a short attack of cardiac dyspnœa.

It is seldom that we are called upon to write epitaphs, but it may be truly said of this gentleman that to him duty (as he understood it) was dearer than life.

TELLURIUM.¹

BY THOMAS GEORGE STONHAM, M.D.LOND.

MR. CHAIRMAN AND GENTLEMEN,—The subject I have chosen for a paper on this *Materia Medica* evening is Tellurium. It is a substance which is a very perfect illustration of homœopathic method and of the way

¹ Presented to the Section of *Materia Medica* and Therapeutics, May 7, 1908.

homœopathy is quickly able to single out the kind of case for which a new drug will be a remedy. Many of our drugs had already been in long use before they received a homœopathic application, and their sphere of action had been to a great extent suggested by previous use. But tellurium came to us with no past history as a drug, and to obtain any inkling as to its therapeutic sphere our well-tried methods of proving had to be employed. The indications thus obtained have been thoroughly confirmed by clinical results, and so have afforded once again a proof of the truth of the law *similia similibus*.

Tellurium is one of the rarer elements, of atomic weight 125. It is sometimes associated with radium, and occurs in the native state and in combination with gold, silver, lead, and antimony. It was proved and first introduced into homœopathy by Hering in 1850. It is not a drug of wide range, but of very definite action within a limited sphere.

The symptoms experienced by Hering himself were difficult retching, accumulation of water in the mouth, followed by yawning; a strange sensation as if sound waves pushed against the pharynx below; pains chiefly in the left side of the head and in the forehead above the left eye, and various pressive pains in different parts, such as the metatarsal bones, and a sensation in the anterior fold of the left axilla as if there were a round tumour internally there. He also found himself neglectful and forgetful, and everything seemed too much trouble, sexual instinct was more excited and powerful, with subsequent prolonged reaction; he had a continued ill-smelling sweat of the feet and a peculiar twitching and distortion of the left facial muscles, often when speaking the left angle of the mouth being drawn upwards and to the left.

Amongst these symptoms of Hering the offensive foot perspiration is the one that has received the most frequent application in therapeutics, and tellurium is a leading remedy for this condition.

Hering's proving was supplemented by others, notably by one by Carroll Dunham, which revealed the sphere of action in which tellurium has gained its chief laurels.

Dunham took 1 gr. of the fourth trituration every night for five days. About twelve days after the first dose the left ear began to itch, burn, and swell. There were aching and throbbing pains in the external meatus, and in course of three to four days there was copious watery discharge from the ear, smelling like fish-pickle; it was offensive and acrid, and caused a vesicular eruption on the lower lappet of the ear and on the neck wherever it touched the skin. The inflammation of the ear generally was not vesicular; the colour was a bluish red, and the ear had the appearance of being infiltrated with water. It lasted nearly three months.

During the second month after taking the drug, the spine from the last cervical to about the fifth dorsal vertebra became very sensitive and the seat of peculiar irritability, which made the prover dread having the part touched or even approached. The dread was disproportioned to the actual sensibility of the part when pressed or rudely touched, for this was not really very great. From the last cervical vertebra a peculiar irritation seemed to radiate upwards into the neck, outwards into the shoulders, and forwards through shoulder to sternum. The distress caused by this sensation was aggravated by fatigue, but only partially relieved by repose. It was great and annoying, and lasted nearly two months. On two subsequent provings with the same preparation being made within two years after the above, the same symptoms, substantially, were reproduced.

It is interesting to notice, in regard to this valuable proving, the length of time during which the drug produced its action. Only 5 gr. in all were taken of the fourth trituration, and all within the first five days. The ear symptoms did not commence till twelve days, and lasted three months. The spinal symptoms did not commence till after a month, and lasted two months. With regard to the ear symptoms, Dr. Houghton made an examination of the ear after the proving. He reports: "An examination which I made after the proving showed the membrana tympani to be irregular, thickened in parts, thin in other portions, the result of perforation and cicatrization."

It is not surprising that after this experience Dr. Carroll Dunham hastened to put his well-bought knowledge into practice. The following is one of his cases :—

B. E., aged 9, had scarlatina in infancy, and ever since otorrhœa. He came to me in December, 1865. I found him quite deaf, with a purulent discharge from the ear; also bleeding from the ear very profuse, provoked by the slightest touch of the meatus externus by the finger. Phos. did no good. Lachesis seemed to help for a time.

February 2, 1866. Tellurium 30, to dissolve a powder in water, and take a teaspoonful three times a day.

February 17. Improvement; discharge less offensive; continue tellurium.

April 10. Has been much better; has had hardly any bleeding, but within a few weeks the external ear had become much swollen. It was bluish red, shining, and studded with vesicles; it exuded a thin, watery fluid, the whole ear looked as if water-soaked. Sac. lac.

April 17. Swelling abated. Eruption drying up. Rep. sac. lac.

August 30. No more bleeding or discharge; hearing much improved.

Dr. Houghton, of New York, says that tellurium is as specific for otitis media with thin acrid discharge as pulsatilla when it is thick and bland. And Nash remarks: "With this remedy I had the pleasure of curing several cases of otorrhœa of long standing, generally following scarlatina in childhood. I used the 6th in these cases. The high failed." Farrington speaks equally well of it in rupture of the membrane and pouring out of pus, which may at first be laudable, but afterwards becomes very offensive, having an odour like that of herring-brine.

And now, turning again to Dunham's proving, and taking the last developed symptoms, viz., those of hyperæsthesia of the lower cervical and upper dorsal nerves, we find them equally valuable in therapeutic result. Two cases recorded by Dr. Shelton illustrate this :—

(1) A widow lady, aged 50, complained of pain and soreness over the upper dorsal vertebræ, extending thence down the left side and arm. She shrank from even the slightest touch, and the

sensitiveness was so acute that when touched the pain extended into the occiput and all over the upper part of the back. In twelve days, after taking tellurium 6, she was much better, but there was some remaining sensitiveness over the left scapula, which was constant, going through to the left shoulder. In another week she was quite well.

(2) A young lady, aged 29, ten years previously had suffered from a severe attack of spinal meningitis. She came for a burning, pressing pain at the base of the brain. This grew worse, and gradually ptosis came on and then right hemiplegia, followed by left, till she became quite helpless and lay for months in bed bolstered up by pillows. During some of the time the head was drawn backwards and there was a feeling as if she were being drawn into a reclining position, which aggravated her sufferings.

The hyperæsthesia of the spinal column and the entire surface of the back became exceedingly distressing. She could not bear the slightest touch, which was felt not only at the point of contact but also in her head and in remote parts of her body.

Tellurium 6 was given. She slowly and steadily improved, the sensitiveness disappeared gradually, and one by one all the symptoms passed away.

In Dunham's proving the symptoms were limited to the upper part of the spine and the nerves issuing therefrom, but some other provers had symptoms that show that tellurium effects are not limited to that part of the spinal cord. Raue, who made a proving on himself with the third trituration, had painful pressure or pain as if beaten in the sacrum, worse when stooping but not abating on rising, and which extended after a time into the renal region. It went off, but some days later returned in the sacrum, and was worse on stooping and better on walking; worse on lying on the back; and when lying on the left side worse towards the right; and in the evening a drawing from the ilium to the calf in the right leg posteriorly. And again, a few days later, sacral pain on stooping, almost intolerable if this position is maintained, increased also by pressure to stool, coughing and laughing, relieved as before by walking; when aggravated, pain extends from the sacral plexus along the sciatic into the thigh; worse right side.

Dr. Kitchen, who took the third trituration, also had pain in sacrum, sometimes stabbing, worse on stooping or on rising up, passing down the right sciatic and making it almost impossible for him to press at stool; restlessness. A woman prover had pain and soreness, beginning in the renal region, extending downwards, and also gnawing, rubbing pains low in the back.

In accordance with these symptoms caused by the drug in the provers, tellurium has been found of service in sacral and sciatic pains, having the special modalities mentioned in the provings.

One of Shelton's cases illustrates the sacral pain :—

A maiden lady, aged 45, had a severe blow on the sacrum from a fall. She was in bed for some weeks for symptoms of concussion, with one point of great soreness just above the spot in the sacrum where the blow was received. The other symptoms passed off, but the sore point persisted and the back became very sensitive, especially at its upper third. Tellurium 6 was given, and all soreness and sensitiveness rapidly disappeared.

The sciatica is illustrated by the following two cases of Dr. M'Lachlan :—

(1) A young woman had suffered from sciatica several months; it was on the right side. The course of the nerve was tender to touch; there was pain at the upper part of the thigh, the knee and the ankle, with a weak feeling at the hip, which she said was apt to give way. The upper part of the thigh felt as if bound up tightly. It was very stiff after rest, and she was unable to lie on the affected side in bed, and moved about to obtain a comfortable place. Carrying a heavy object by the left hand seemed to aggravate the pain, as did also coughing and laughing. After rhus., colocynth and arsenicum had been given in vain, tellurium 6x was prescribed and was followed by immediate and permanent relief.

(2) An apparently hale and hearty woman, above 70 years of age, had sciatica. It began with lumbago-like pains, which finally settled in the left sciatic nerve, which was very tender to touch and pressure. The pains darted through to the left iliac region. There was great aggravation on coughing, laughing, or lying on the affected side, also on stooping, rising from sitting, straining at stool, and when the bladder was full. After a few doses of

tellurium 6x, the patient could move in bed without screaming, and in a few hours could with some difficulty get out of bed. The following night the urine had a very foul odour (characteristic of the drug). The progress of the case was steady and sure.

There is yet one more sphere of action in which tellurium has gained therapeutic fame, and for indications for which we must go to yet other provings. I refer to the skin.

One of the provers had small red itching spots, shining through the skin, which came discretely on many parts of the body.

Dr. Whitey, another prover, had an eruption of small red pimples with minute vesicles on them on the outside of the calves and inside of the forearms, spreading thence, with very severe itching, worse at night in bed.

Another prover had small red papules, itching much, on the abdomen, inside of thighs and perineum. Dr. Metcalf experienced fine sticking and prickling in various parts of the skin of the whole body. On the forehead there came a small group of vesicles on a red areola; they formed a circular cluster which extended at the circumference, and in doing so left the skin in the centre desquamating and surrounded by an outside ring of vesicles. A similar eruption appeared on the left flank and also a second circular ring of vesicles on the forehead near the hair margin. There were also vesicles on small red spots on the scalp, which dried up in a few days, leaving white scales behind.

A vesicular rash appearing in circular clusters is the kind of skin eruption calling for tellurium. Thus it is useful in herpes circinatus and in ringworm. Clarke says: "It has probably cured more cases of ringworm, especially of the body and face than any other, medicine"; other remedies for the same kind of eruption are sepia and nat. mur. Tellurium affects and cures also a similar condition in the eyes, viz., phlyctenular conjunctivitis; there are vesicles at the corneal margin, and the eyelids are inflamed.

It is interesting to note that the structures mentioned, on which tellurium exerts its influence, viz., the ear, eye, skin, and spinal nerves, are all derived from the same embryonic structure, viz., the epiblast. Radium so far as it has yet

been proved seems to act on parts derived from the same embryonic structure. Now Marckwald separated from pitchblende a tellurium which was found to be radio-active, and which he called radio-tellurium. It has been proved that the radio-active substance in radio-tellurium is identical with the seventh transformation of radium called by Rutherford radium F, which gives out α -rays. It is possible that tellurium owes its therapeutic properties to the Radium F contained in it. If so, it would be of great importance in preparing the medicine to use a specimen which exhibited radio-active properties.

A case which has recently come under my own observation suggests a similarity of action between tellurium and radium, inasmuch as the one antidoted the effects of the other. Mr. H., an elderly gentleman, consulted me on January 2, 1908, for a red and inflamed patch on the nose. Eleven days previously, on December 22, he had consulted a skin specialist for a condition of the skin of the nose, which had been present for fifteen years. Near the ridge of the nose, about halfway down on the right side, he had had what looked like a peeling of the skin over an area about half the diameter of a threepenny piece; on a closer view slight cracks could be seen in it. The spot had never thoroughly healed, but successive coverings of skin cracked and peeled off. Apparently only the epidermis was affected. It caused no pain and was of a pinkish colour, like the peeling of skin after a sun-burn. It was made rather worse by sun and cold winds. Various mild applications had done it no good, and it had lately seemed inclined to spread—hence the visit to the specialist. He diagnosed it to be a rodent ulcer and applied radium to it for one hour. Nothing was felt at the time, but the next day the place looked red and began to itch badly. An ointment was applied, but the redness increased and extended, and daily got worse till his visit to me, eleven days after the exposure to radium. I found on the right side of the nose a triangular patch of inflamed skin equal to a shilling in area, and in the centre the epidermis was abraded and left a red moist surface which exuded a little fluid and was depressed, the outer margins of the red patch being slightly elevated. The red patch had a perfectly abrupt border. It was evidently a radium burn, and I ordered calendulated lanoline to be applied locally, and prescribed tellurium 6 m.v. night and morning.

January 12. Ten days later he told me the sore place got no better till January 7, when on rising it was found to be greatly improved. Seen to-day, the ulceration is gone and the red patch is now bluish white, epidermis covering the former sore. There was itching the first few days, but not since the 7th inst.

February 10. The nose has now a perfectly normal appearance. The radium burn and the original trouble are both gone.

There are still a few symptoms found in the provers of tellurium which have not yet, as far as I know, received any therapeutic application, viz., rough scratching prickling in the throat and fauces; accumulation of much saltish mucus in posterior nares; coolness in mouth on inspiring as from peppermint; fluent coryza in open air; hoarseness, watering of eyes and pressure behind sternum; copious sweat of garlic-like odour; on going to sleep sensation as if wafted very quickly in the direction of his legs; a parallel symptom to this last was present in one of Dr. Shelton's spinal cases, who had "a feeling when bolstered up as if she was being drawn into a reclining position, which aggravated her sufferings." Other symptoms are violent attacks of vertigo; sudden rushes of blood to the head, drowsiness after eating.

The PRESIDENT said the Society was indebted to Dr. Stonham for having brought the drug tellurium before it, of which their knowledge perhaps needed to be a little more crystallized. Tellurium was a drug of which he personally had not had a very extended knowledge, but when he had used it it generally had served him well. He had used it chiefly in cases of sciatica and of neuritis of the lower extremities, and in several instances the results had been really brilliant. One case he had already brought before the Society, and need not therefore repeat it. He would like to say a word with regard to the drug's action in ear cases. To the aurist, an offensive discharge was nearly always connected with disease of the antrum or of the mastoid cells, and, when present, in many cases it was necessary to resort to surgical means for relief. In doing that, homœopathic practitioners were fulfilling one of Hahnemann's aphorisms, namely, to evacuate all collections of pus and to get rid of all foreign bodies. However, if in tellurium they possessed a drug which possibly might save the patient from such measures, he was sure the latter would be sincerely grateful. From what Dr. Stonham had said of the drug,

however, it seemed to him (the President) that the indications were rather for suppuration of the middle ear or of the meatus than for that of the deeper lying structures. Indeed, some of the symptoms which Dr. Stonham had mentioned in connection with the ear were strongly suggestive of an eczematous process, whether of the auricle or of the meatus, or even of the membrana tympani. Hering, in his "Guiding Symptoms," gave a vesicular condition of the tympanic membrane that might very well go on to perforation. The middle ear would then be infected by the discharge. The ear symptoms of tellurium were much akin to those which were found in the skin generally as a result of its action. Dr. Alexander had also used tellurium in cases of ringworm of the scalp, and, he thought, with favourable effect.

Dr. CLARKE was particularly gratified to hear the things Dr. Stonham had said about tellurium in connection with the paper he (Dr. Clarke) had read in March on "Radium." Tellurium compared very closely—much more closely than he had thought when he had read his paper—with radium. One of the remarkable things was the long time tellurium took to develop its own action in the provers—the length of time after the dose was taken before the symptoms began to appear—and the very long time which the symptoms continued, although no fresh dose was given. Tellurium acted, as Dr. Stonham had said, very much on the regions that radium had hitherto shown its power to act on—the skin, the eye, and also the nerves, for he had had given to him another symptom by Dr. Molson from an experiment with radium, namely, a very violent trifacial neuralgia. Dr. Molson had prepared, up to the 45th decimal, triturations of radium, and somewhere about the 40th he had taken a dose, and he did not want to take a second! The case Dr. Stonham had given of the patient who was treated for rodent ulcer by radium, and who had the very extensive radium burn which was antidoted by tellurium, was very interesting. It added tellurium to the list of probable antidotes to radium—*rhus. ven.* being the one he (Dr. Clarke) had discovered.

Dr. BLACKLEY said his acquaintance with tellurium was a somewhat limited one, for he had practically only tried it in cases of ringworm of the scalp, and that not in recent years, for he had given it up as being quite inert. A good many of the cases of ringworm which came before him for treatment had, however, already been treated with tellurium, and he therefore took it that all cases of ringworm did not get well under the drug. He asked those gentlemen, including the President, who had succeeded in

apparently curing ringworm with tellurium, whether in all cases the parasite had been looked for and found. Ringworm, of course, sometimes got well of itself; he constantly saw cases which had been either maltreated or not treated at all, which got well of themselves after a certain time, and he thought all such cases ought carefully to be excluded before giving the credit to any drug as being instrumental in the cure. Personally, as the result of thirty years' work in dermatology, he was profoundly sceptical as to the power of any unaided drug to cure ringworm of the scalp or beard without the use of some parasiticide at the same time. He certainly did not feel himself justified at the present time in depending upon internal treatment of any sort. There was no question of the fact, of course, that constitutional conditions did bulk for a good deal in cases of ringworm. It was seen constantly in families where several children were suffering from ringworm that the most delicate child suffered the longest. It was most difficult to cure, especially in scrofulous children; but there was no question of the fact that ringworm was cured in hundreds of cases every day in London and other large cities by means of external remedies alone, because the dominant school had no belief whatever in internal medication in ringworm. Another drug which he had heard of being given in such cases was sepia. He had cases come to him in which sepia had been given, and the sepia was credited with having cured the ringworm; but he was never quite able to understand why the cases should come to him uncured still. In other respects he thought there was a considerable future before tellurium, and the same might be said of selenium, a drug which closely resembled both tellurium and sulphur both in chemical constitution and physiological effects. He had used selenium very largely, especially in some forms of acne, and with the happiest results.

Dr. STONHAM, in reply, said he had not had any experience of treating ringworm with tellurium, and he did not know he should have expected tellurium to do very much in that respect. He should rather have thought it would have been useful for the circular kind of eruptions, which went by the name of herpes iris, rather than for true ringworm. Of course, the true ringworm of the body was so easily cured by parasiticides that one always used them at once without troubling about a particular drug.

VARIOUS DERELICT CASES.¹

BY JOHN ROBERSON DAY, M.D.LOND.

Physician for Diseases of Children to the London Homœopathic Hospital.

MR. PRESIDENT AND GENTLEMEN,—At somewhat short notice I was asked to read a paper before this Section of the Society. When casting about for a subject it occurred to me that a series of cases which have been cured under homœopathy after the old system of medicine had been tried and found wanting would prove of interest.

The following cases are all of recent date, and have never been published before. They have all drifted about from one hospital to another or from one doctor to another before coming to me, and thus I think the title of my paper is justified.

The tubercular cases are always most satisfactory to treat, and the contrast between the two systems of treatment is here very sharply defined. Under old-school treatment local measures alone seem to be employed, *e.g.*, removing tubercular glands, nodules, and carious bones; but no constitutional means are employed beyond attention to hygiene and the nutrition of the body.

I have before recorded cases where tubercular nodules were being removed from the skin in various parts of the body without any medicine having been taken, and when treated by our methods these nodules gradually melted away and ceased altogether.

The first case is an illustration of this point. A tubercular ulcer had been under treatment for two years at no fewer than three institutions. Local applications had been employed in each case, and without benefit, but four weeks treatment at this hospital promptly cured.

Case 1.—Tubercular Ulcer of Two Years Duration.

Alice K., aged 9, was the second child in the family, and there is a history of tubercle in the family; a sister, Annie K., aged 3, has caries of the spine, and is under my care.

¹ Presented to the Section of Materia Medica and Therapeutics, May 7, 1908.

The history given was that a sore place appeared on the right knee, over the patella, two years ago. She had been under treatment for this at the Charing Cross Hospital and Bloomsbury Dispensary, also at the London Medical Mission, Short's Gardens (Dr. Sewell McFarlane). At each institution it was said to be an ordinary ulcer and was treated with ointment only, no medicine being given internally.

When she came here on March 16, 1908, there was a large irregular ulcerated patch of skin about the size of a crown piece over the right patella. The femoral and inguinal glands on the same side were also considerably enlarged. There were also enlarged glands in the neck and under the chin. I prescribed arsen. iod. 3, gr. ii., four hourly, and tuberc. 30 weekly. She came again on April 13—i.e., in exactly four weeks time—with the ulcer completely healed and the femoral and inguinal glands reduced. No local treatment was given.

Tuberculous disease of the peritoneal cavity is very common, and most satisfactory to treat. You may now see in the Barton Ward a boy who is doing exceedingly well under tuberc. 30. On admission he had an irregular temperature, with considerable abdominal pain and some free fluid in the abdominal cavity. Now the temperature is normal, pain has subsided, and the fluid disappeared.

I exhibit here the photograph of a similar boy, whom I treated years ago, and who is now a strong young fellow in the Army and possesses such musical talent that he plays a cornet in the band.

Case 2.—Tubercular Peritonitis.

Grace P., aged 3, was sent to me by my colleague, Dr. Johnstone. She was the fourth child in the family, and the other children were said to be healthy. There was no history of phthisis in the family.

She had been under treatment previously at the North-Eastern Hospital for Children, Hackney Road, for four months, where she steadily got thinner, and her case was declared hopeless unless she was left in.

I first saw her on April 2, 1903. She was a very cross child, with a greatly distended abdomen, measuring at the umbilicus $20\frac{1}{2}$ in., and from xiphoid cartilage to pubes $8\frac{1}{2}$ in. This enlargement had steadily increased, and with it she had wasted. Once

or twice a week she had attacks of vomiting, with abdominal pain. On palpation large masses could be felt, and there was evidence of some fluid in the abdominal cavity. There were no other definite physical signs. Arsen. iod. 3, gr. ii. *ter die*, and tuberc. 30, in weekly doses, were given.

She very soon contracted whooping-cough, for which the appropriate remedies were given, and she got through the attack very well, and by May 28 the measurements of the abdomen were 19½ in. and 8 in. The large masses in the abdomen could still be felt, but she was distinctly better. Improvement continued, and on September 4 measurements were 19 in. and 7 in., and the abdomen no longer protuberant.

By October she had much improved and, to use her mother's description, "was not like the same child." The masses could be still felt, and the bowels were loose and offensive, acting twice in the twenty-four hours. I now substituted vinum iodi, m℥i. *ter die*, with food, and continued the tuberc. 30. Her progress was steady, interrupted by occasional attacks of abdominal pain with offensive diarrhoea. Arsen. iod. 3 always relieved this condition, and she practically continued to take it all through her illness.

A note, made April 15, 1904—that is to say, just one year after treatment—reads: "Complexion clear, and a very good-tempered child now."

I may here mention how often one sees the mental conditions improve *pari passu* with the bodily improvement. How often the bad tempers and irritability of children are but a symptom of ill-health, and, conversely, good, happy children are generally healthy.

I still see this child occasionally. The last time she came was for ringworm March 20, 1908. She is now a pretty child, with fair hair and pink complexion; all abdominal symptoms have disappeared.

Case 3.—Tubercular Disease of Bones of the Leg.

Walter B., aged 9; admitted March 15, 1906; was the second child in the family, and had been bottle-fed as an infant.

History of present illness.—He had had four operations on the left leg at Paddington Green (John Murray) and University College Hospitals (Victor Horsley). A week before his mother brought him to me she had again taken him to University College Hospital, where they proposed further operating (Mr. Scott), and thus he came to this hospital.

Condition on admission.—The outer side of left leg over the lower end of the fibula showed many scars of former operations.

There was some tenderness and swelling over the ankle-joint suggestive of strumous disease. He walked lame and complained of some pain in so doing. There were no other physical signs.

I prescribed weekly doses of tuberc. 30 and sacch. lact. as a placebo.

March 30 he was doing well, and the treatment was continued through April and May.

On June 22 he was walking well, in no pain, and practically cured.

I have since seen him and had occasion to treat him for other ailments, but he has never had any further trouble with his leg, and when I last saw him on April 3 of this year (1908) his leg was perfectly well and he was walking as any other boy.

Case 4.—Vomiting for Two Years.

Arthur C. was a remarkable case in more ways than one.

He first came to me, aged 6, on June 8, 1903, with a history of continual vomiting after each meal, and had been pronounced incurable at the Hospital for Sick Children after three years treatment, according to the mother's statement. On this occasion I prescribed ipec. 3x pil i., two hours. On June 22 his mother brought him again, saying he was now only sick once a day instead of after every meal as formerly. I repeated the medicine, and after July 6 saw him no more till January 20, 1908, when a lady urged his mother to bring him to see me.

It appears, the mother, forgetful of the benefits her child had obtained here on the former occasion, had been attending the Brompton Hospital for Consumption under Dr. Latham.

The boy was now 11 years old and had been vomiting again. Although it appears incredible, the mother had been taking him for *two years* to the hospital mentioned for continual vomiting without benefit. The medicine given repeated. About every six weeks he had these attacks of vomiting, which were induced by a chill or foggy weather.

I found his teeth in a shocking state with alveolar abscesses, and he was suffering from pyorrhoea and septic absorption.¹ His colon was full of hard scybalous masses. This was on January 20, and I prescribed nux. vom. 12, miii. *ter die*. On January 27 I saw him again, and his mother told me after the first dose there had been no more vomiting and he was better in every way.² This

¹ Mr. Clifford attended to his mouth, removing the carious teeth.

² Thinking this would be an obstinate case, I ordered him to come into the hospital, but when he did come in he was *cured*, as his mother says, "after the first dose of medicine."

happy state of affairs has continued, and I last saw him on April 2, when he was perfectly well.

One is inclined to ask whether this was a case of "cyclic vomiting," about which we read a good deal; or was it a case of "stricture of the pylorus," an instance of which has recently occurred in the practice of a colleague, where the child was about to be submitted to an operation after two consultants had failed to give relief. Fortunately for the child wiser counsels prevailed, and *nux. vom.* 6 at once cured the case.

The mental condition of the mother presents a peculiar psychological study, which I leave to the neurological department of this hospital (London Homœopathic Hospital) to unravel.

The following extract is from the *British Journal of Children's Diseases* for April, 1908, and is instructive reading side by side with the cases of the same disease I have here recorded:—

"On March 10, 1908, Dr. Jas. K. Young showed a case of tubercular dactylitis, before the Philadelphia Pediatric Society, in an Italian boy, aged 7. Four years ago he had an abscess of the right thigh. A year later he had another abscess on the back of the left thigh, both of which were incised.

"Subsequently two lesions appeared in the skin on the left wrist and right knee, which had all the characteristics of lupus.

"A kyphos developed in the lumbar region about the same time that the second abscess formed, and a year ago Dr. Young operated for double lumbar abscess. The dactylitis for which he is presented dates back two years and is characteristic in appearance. The proximal phalanges of the index, ring, and middle fingers on the right hand are enlarged and contain numerous discharging sinuses. The X-rays show the formation of new bone in the periosteum, and examination of the pus from the sinuses shows the presence of staphylococci from secondary infection.

"Tubercle bacilli have not been obtained from any of the sinuses, but the spinal deformity is so characteristic, and the dactylitis corresponds with the usual form of tubercular dactylitis so closely, that the case is presented as one of this variety."

In the discussion which followed, incision and curetting were recommended, or amputation of the tubercular dactylitis, which might be avoided by prompt excision of the affected area. Also treatment by Bier's passive hyperæmia. Tuberculin (Koch, T.R.) was used to differentiate these cases from syphilitic dactylitis.

One observer had seen fatal meningitis follow tubercular dactylitis.

You notice that no internal treatment is spoken of, but the local manifestations of this disease are vigorously attacked. Koch's tuberculin was used only for diagnostic purposes.

My next two cases are of epilepsy.

The instability of the nervous system in children is so well known that it is only necessary to allude to it here.

Gowers states that 12 per cent. of the cases of epilepsy commence during the first three years of life, and 46 per cent. between 10 years and 20 years. Not infrequently epilepsy can be traced to infantile convulsions. It is not possible to distinguish between convulsions and epilepsy in young children.

It is of the utmost importance to cure the convulsions, lest they should persist as epilepsy, and to attain this end we have remedies both tried and proved.

Every species of cell activity which is constantly repeated paves the way for easier repetitions. There is a crescendo in the untreated cases, and, as a cure is accomplished, a diminuendo, which is well illustrated in the following case:—

Case 5.—Epilepsy.

Maurice F., aged 5 years and 10 months, was born of healthy parents, and was the eighth in the family. The other children were said to be delicate, and one had died of pneumonia. He had been breast-fed, but had suffered from rickets; also had measles and whooping-cough.

His mother brought him to me with the history that from 6 days old he used to have "epileptic fits"—as many as six or eight in one day. In the fit "he turned black and tore at his mouth." As a baby a fit of crying would induce an attack. He was

delivered with instruments, and there is ptosis of the left upper eyelid since birth. He is very nervous, depressed or excited, and restless in his sleep.

He had recently been treated at the Hospital for Sick Children for eighteen months, but was no better. The medicine given there (? bromide) would make him sleep for hours, and when he awoke he would be "almost like an imbecile." He has several times bitten his tongue in a fit, but has never passed urine or fæces. He suffers from headaches, especially occipital. He was very destructive and passionate. His vision and hearing were good, also has a good memory. There were no definite physical signs beyond a doliocephalic head.

On May 16, 1907, I prescribed bell. 12 *ter die*. On May 30 his mother reported he was sleeping better, and was better in every way. In June he had a bad fit, brought on by a thunderstorm. In July he was very irritable and sleeping badly, so I altered the dilution to 30 *ter die*, and he continued to take this. In October another thunderstorm brought on a slight fit, but on the whole he was improving and had better nights than for years.

In December he was still irritable and depressed and liable to fits of passion. Since attending has not had more than three fits. He is beginning to learn his letters. Last February I changed the medicine to anacardium 6, and later on 12.

He continues well, free from fits and more intelligent and sharp in every way. Last seen May 4; his mother says he is still liable to attacks of irritability and nervousness, and then very mischievous—will tear and break up his toys from pure spirit of destruction.

Case 6.—Epilepsy.

Winifred A., aged 11, had lost her father from consumption. She was breast-fed for six months, but suffered from convulsions during teething, and dentition was delayed. She had suffered from measles and whooping-cough.

She was brought to me on December 30, 1907, with a history of having had epileptic fits since 3 years of age. She had been attending the Hospital for Sick Children for three or four years on and off. She ceased attending, as they said they could not cure her. She was under the care of Mr. Arbuthnot Lane, and the medicine, described by her mother as tasting very salt, made her very thin. She was afterwards under Dr. Batten.

The fits come on during sleep. She used to pass urine after a fit, now always passes wind from the stomach and sleeps after. Some days she will have three fits, on others seven or eight or

more. Consciousness returns in ten to fifteen minutes after the fit is over. She used to know when the fit was coming on, but now does not, although her mother can tell by her vacant look, and beforehand she is very excited and blinks her eyes constantly. She screams out when she goes off into the fit, calling "Mum! mum! mum!"

On examination, I found her a thin, small child with a very dark skin, and she had an old fractured rib on the left side. She was very nervous, twitching and moving constantly. The heart and lungs were normal.

I prescribed Bell. 30, *ter die*, and oleum morrh.

February 10. She had had three more fits, at night, between 10 and 6 a.m. Had not passed water in the last two. This represented a great decrease in the number of the fits, and she had gone longer between the fits. Continued Bell. 30.

March 2. There had been four more fits just as severe. Before the fit she feels "cold inside and shivery." She turns blue-grey in the face and dark under the eyes, even if the fit does not come on. I changed the medicine to Cuprum met. 30.

March 23. Only had two more fits in her sleep. Feels shivery at times, which passes off without a fit. Continue Cuprum 30.

My last case, a crisis of puberty, illustrates a condition not unfrequently met with during the onset of puberty in girls and to a lesser extent in boys:—

Case 7.—Crisis of Puberty.

Hilda P., aged 12, had been six weeks attending as an out-patient at the Croydon Hospital, suffering from headaches, faintings, restlessness at night, and nausea after food. She was getting no better, and came to the Children's Department, November 11, 1907. I found her highly nervous, but physically very sound. Pulsat. 3x at once cured the nausea, but she continued highly nervous and sleepless. Feared to cross London Bridge lest she should fall into the river! For these symptoms Ignatia 3x, and subsequently Bell. 3 were prescribed.

In January last other mental symptoms developed, such as loss of memory—she would forget things and slept badly. There was a distinct aggravation every four weeks, when she became very restless. She was formerly bright at school, but her teacher lately noticed her strange and bewildered, *e.g.*, "when doing

'sums' she would pass into writing." Her mother on one occasion left her to wash up the tea things, and found she had done so and put them away in the oven, and did not know where they were. For this condition I prescribed *Anacardium 6*.

In February she had a severe shock—saw a child killed by a motor—and on March 30 I prescribed *Calc. phos. 12 ter* for the occipital headache she complained of.

On April 13 she was very much better, had no headache, was sleeping better and less nervous. Last seen on May 4, "better in every way," but subject to vacillation of purpose and failure of memory at the menstrual epoch.

I have now brought before you seven cases—seven is considered a perfect number—and I propose to end here, although had time permitted and your patience not been exhausted it would have been easy to have added to this list. I have carefully selected cases which have previously had the present-day treatment of the dominant school without success, and hence they have sought relief from homœopathy, and I think you will agree that they have not sought it in vain.

Dr. GOLDSBROUGH said his interest in Dr. Day's paper centred chiefly in the cases of epileptic convulsions, and he congratulated the author on the success which had hitherto attended his efforts. There was a tendency, unfortunately, for epileptic seizures to recur at the second septennial period of life after a period of cessation from, perhaps, 3 years or 4 years of age, to sometimes about the eruption of the permanent teeth, and also at the onset of puberty. He therefore suggested that Dr. Day should keep his cases under observation for a long period and then tell the Society whether the epilepsy had recurred. Epilepsy was such a formidable and serious disease that one did not care to speak too hurriedly about cures, although Dr. Goldsbrough was firmly convinced, the more he saw of the disease, that patients were very much better under homœopathic than under other treatment. He had unfortunately not found much benefit from *cuprum*. *Belladonna* was the homœopath's sheet-anchor in epilepsy, especially in children, but as emphasized in a paper presented to the Society a year and a half ago, constitutional treatment was the thing which the epileptic required from beginning to end—i.e., the endeavour to get to the root of the trouble and treat that

primarily and over a long period. Some of the cases he had mentioned in his paper were still coming. They would have been regarded as hopelessly incurable by the orthodox school. There was one in particular, who was nearly 30 years of age, and had had epilepsy since he was 11. There had been a steady diminution of fits and a steady increase in mental power, and he (Dr. Goldsbrough) felt quite hopeful about the patient being able to take some sort of position in society later on. He had been treating this patient with silica and zincum, and occasionally belladonna. As constitutional remedies, tuberculinum, silica, zincum, sulphur and calcaria were the best, with the use of belladonna and cuprum, and a few other drugs, as occasion might arise.

Dr. COOPER said that such cases as Dr. Day had described would be an eye-opener to the other school of medicine, if they could be forced on their attention. He considered that great significance attached to the title of the paper, "Derelict Cases," and that this would have been even greater if it had been "Allopathic Derelict Cases." One of the first discoveries he (Dr. Cooper) made when he commenced practising homœopathy was that in becoming a homœopathic practitioner he *ipso facto* became a *specialist in allopathic derelicts*. Dr. Day's cases called to mind one Dr. Cooper had treated, of caries of the pelvis in a lady. Several discharging sinuses were present, which had resisted allopathic measures for many years. These latter had, of course, taken the form of numerous operations for removal of carious bone and scraping the sinuses. He commenced by administering silica with some benefit, but the sinuses tended to reopen from time to time. Two doses of tuberculinum were then given at several days' interval with no immediate improvement, but when the silica was recommenced the sinuses completely cleared up and the patient recovered, showing that the two remedies were required to complete the cure. Though the silica was obviously indicated, it could not get to work until the nosode had cleared the way. He was opposed to the practice of commencing a case by administering two remedies, for by using one at a time a better appreciation could be derived of the benefits accruing from each particular drug.

Dr. CLARKE suggested that Dr. Day's paper should be republished as a tract and sent round to all the surgeons and physicians of the London hospitals, together with the portraits of the patients. Some of the doctors would recognize them, possibly, and it would do them good and probably help to convert them to homœopathy;

if it did not, it ought to. With regard to epilepsy, he had had a communication from a correspondent in India to the effect that he had found a new animal remedy for epilepsy in the bot of the camel fly. The fly laid its eggs in the nostrils of the camel; the eggs developed into maggots in the air passages, to the discomfort of the camel, which sneezed them all out as fast as it could. Sometimes, however, the maggots found their way into the brain of the camel, and the camel then died with cerebral symptoms. The natives of that part of India knew those bots as being a remedy for human epilepsy. His correspondent, Mr. Middleton, had put the thing to the test and had cured a number of cases, and he had also put it into the hands of a homœopathic chemist who had made homœopathic triturations which had been used with good effect. The singular thing was, that after Mr. Middleton had come across the remedy, he found mentioned in an old book that the sheep-bot was also a remedy for epilepsy. Therefore, when belladonna and all the rest of the drugs gave out, homœopaths might turn their attention to the bots. He had sent over to India for some of the bots, and he would communicate with the Society when they arrived. In the meantime, he thought some sheep-bots might be obtainable near at hand, and there was no reason why they should not be tried at once in tough cases. The case which Dr. Day had brought forward of the action of tuberculinum was extremely valuable and interesting, and it showed how very much more homœopaths could do with the nosodes than allopaths could. He thought homœopaths ought to work their nosodes for all they were worth.

Dr. STONHAM remarked that one remedy which he had found useful sometimes in chronic cases of epilepsy was barium. He once had a patient, a middle-aged man, suffering with athetosis, who was subject to very frequent recurring attacks of epilepsy, and he gave him baryta mur. and baryta carb. at various times from the sixth to the thirtieth dilution, and the number of attacks was definitely diminished. The patient went for eleven months without an attack, and then ten months, whereas previously he had been having fits every week. In that case he thought baryta played a great part in reducing the attacks.

Dr. ROBERTSON DAY, in reply, said Dr. Goldsbrough's remarks on epilepsy should have weight from his experience in the neurological department of the Hospital. At the same time it must be remembered there is nothing talismanic in the number seven. It is a popular belief that our bodies are reconstructed every seven years, but the onset of puberty is attended with

much stress to the system, which at this time undergoes profound changes; hystero-epilepsy is not unfrequent then. He willingly acceded to Dr. Clarke's suggestion, and in due time, with the consent of the Society, the paper would be reprinted.

ELIMINATIONS.¹

BY CLEMENT JOHN WILKINSON, M.B.C.S.ENG., L.S.A.LOND.

MR. PRESIDENT,—It is a time-worn gibe against the practice of our profession that it consists in putting drugs of which we know little into bodies of which we know less. Like most gibes, it owes its success to the proportion of truth which it contains. Some bitterness might be added to this particular taunt by the statement that we know almost nothing of how the drugs we use are to get out of the body into which we put them.

I propose to discuss the method by which one small class of drugs escapes from the circulation. Our knowledge of the whole question is scanty, but it is still far too large for consideration in a single paper. But the elimination of drugs and of autotoxins is so important, especially to us, that some benefit may follow even a partial and tentative examination of it.

Dr. Hunter, following Schmiedeberg and Stadelmann, has investigated the action of toluylendiamine in producing jaundice in dogs. This action is curiously uniform, and the results of their experiments may be epitomized as follows:—

When 0·4 grm. of toluylendiamine is injected into the circulation of a dog, it is found that in two hours, and for twelve hours thereafter, the bile undergoes a marked increase both in its actual quantity and in its content of bile-pigments; the bile-acids are in the meantime notably diminished. Toward the end of this, the first, stage, jaundice appears and increases in intensity; bile-pigments are found

¹ Presented to the Section of Materia Medica and Therapeutics, July 1, 1908.

in the urine in fifteen or twenty hours after the beginning of the experiment; the bile-acids do not appear there until some hours later.

The second stage of poisoning shows, as is usual, a reaction from the phenomena which marked the first stage. The bile, which was in excess, is now diminished in quantity, and what secretion takes place is scarcely bilious in character; it becomes, indeed, a thick viscid colourless mucus. Early in this stage the bile-pigments and bile-acids are present in the urine in increasing quantities, but finally disappear entirely. This second stage lasts some sixty or seventy hours, and is succeeded by a third, in which the *status quo ante* is gradually re-established.

If such an experiment is conducted upon a dog in which a biliary fistula has been previously established, the bile can be examined from hour to hour and its composition determined. It can thus be proved that during the fourth hour of the experiment a small but appreciable quantity of the poison (0.47 mg.) is present in the bile, while in another animal similarly treated only a trace could be detected in the total quantity of the blood. Only one-eighteenth of the amount injected is accounted for by the urine.

Meanwhile the histological changes which have been taking place have been very considerable. Some moderate hæmolysis has occurred, but there has been no hæmoglobinuria. There is actual swelling of both liver and spleen; there is also marked catarrh from the hepatic cells downward, the smaller and larger biliary passages being swollen as to their epithelium, and blocked by a thick tenacious viscid mucus, which extends to the biliary papilla and (where the action of the poison is well marked) extends to the duodenum, the mucous membrane of which swells to three times its normal thickness and is intensely inflamed.

Seeing, then, that it is impossible to account for the poison itself in the bile, the blood, or the urine, we are driven to the conclusion that the intense action manifested in the bile-passages is due to some derivative of the poison rather than to the presence of the poison itself. And in this relation it is necessary to notice that toluylendiamine

causes only a quite moderate hæmolysis and no hæmoglobinuria; for, as is well known, the presence of loose hæmoglobin in the blood is itself capable of causing jaundice from polychromia, a condition in which the total amount of the bile and of the bile-acids is diminished, while the bile-pigments are greatly increased. Intravenous injections of distilled water and of solutions of arseniuretted hydrogen have a similar power of producing this effect.

We have here, then, a poison which, when introduced into the blood, is acted upon, probably, in the spleen and in some of the organs tributary to the portal vein. This action, while it leaves it chemically unrecognizable as toluylendiamine, either endues it with, or allows it to retain, an intense selective affinity for the epithelium of the biliary passages, an affinity which expresses itself in an acute toxæmic catarrh. And it is worthy of note that this catarrh is a descending one, commencing in the smaller hepatic ducts and only involving the duodenum by extension. This is a very different state of things from the well-recognized ascending duodenal catarrh which creeps into the bile-passages, carrying its microbial fauna with it.

The causation of jaundice has been keenly discussed, but here we are privileged to see one type of jaundice nascent. The hepatic ducts are blocked by a thick tenacious mucus excreted by their own epithelium; the same state of things exists in the larger passages. The liver, meanwhile, is far from inactive or, in the conveniently nebulous phrase, "sluggish." On the contrary, it is busy secreting a bile characterized by a superabundance of colouring matter and a deficiency of bile-acids. Bile is normally excreted at very low pressure; it has now to combat a very considerable pressure to which it is unequal. Water is consequently reabsorbed, the bile becomes more and more inspissated, excretion into the intestine becomes impossible, and the blood is loaded with bile-pigments. In other words, we have an evident, and ultimately intense, jaundice.

Now, this type of jaundice, characterized by its association with but a slight degree of blood-destruction and by a descending catarrh of the biliary passages, occurs not

only in cases of poisoning by drugs *ab extra*, but also in certain diseases presumably caused by derivative products of microbial infection; by poisons, that is to say, of home manufacture. The drugs which are known to set up this state of things are toluylendiamine, phosphorus, arseniuretted hydrogen, snake-bite, and distilled water. This latter is, I need scarcely remind you, a poison to epithelium potent in direct ratio to its purity. The jaundice comparable to that caused by these poisons occurs in certain cases of malaria, in relapsing fever, rarely in typhoid and scarlet fever, and in typhus. There is, moreover, a class of diseases at present but little understood, in which the similarity is especially close—such diseases as go by the vague names of “infectious,” “febrile,” “epidemic,” and malignant jaundice and, above all, Weil’s disease. Series of cases of jaundice with slight fever, only explicable on the supposition of some infectious agent, are not uncommon. But few of us have seen, or are likely to see, a case of Weil’s disease. This is a form of febrile jaundice announcing its invasion occasionally by rigors. The jaundice appears on the second or third day; liver and spleen are swollen and tender; nephritis and severe nervous symptoms are present. The urine shows copious bile-pigments, and bile-acids are sometimes found. A definite organism, the *Bacillus proteus fluorescens*, has been found, isolated and cultivated. The similarity between the symptoms and those of poisoning by toluylendiamine is obvious enough, and it is clinched by the *post-mortem* findings in the few fatal cases which have been observed. The liver was deeply bile-stained, the lobules indistinct; the liver cells showed cloudy swelling. The gall-bladder and bile-ducts had their mucous membranes swollen and hyperæmic, and a similar condition existed in the duodenum where the morbid secretions of the biliary passages had reached it.

It is of interest to homœopaths to mark a close correspondence between drug effects and disease effects, an interest which would be intensified if we were in a position to affirm that in this instance the drug had proved curative in the disease; but that is not yet the case.

It will be worth our while to glance briefly at the action of phosphorus and arseniuretted hydrogen in setting up jaundice. The action of these drugs in this sphere is strictly comparable to that of toluylendiamine, though their pathogeneses in other parts of the body naturally diverge widely.

In phosphorus poisoning, except in those rare cases in which jaundice is absent, it is found that the bile is at first increased in quantity, the bile-pigments being copious, the biliary acids small, in amount. Later, the discharge from the bile-duct is one-fifth of the normal quantity and is represented by a clear mucoid fluid. If the liver can be examined at this stage, it appears that the smaller bile-ducts are obstructed by swelling of their lining epithelium and by the changed nature of its secretion. In support of this, it has been found, in experiments upon dogs, that the larger bile-passages are unstained by bile, owing to the smaller ones being blocked by thick mucus. It is thus abundantly clear that the jaundice of phosphorus poisoning is a jaundice due to polychromia (an excessive manufacture of bile-pigments by the liver), and that this polychromia is accompanied by irritation of the bile-passages, due to secretion by their epithelium of some by-product. The jaundice must therefore, be classed as obstructive and hæmo-hepatogenous.

The same may be said of the jaundice of arseniuretted hydrogen. Here, too, after a primary excitation of secretion, the bile shows concentration to one-fifth of its normal quantity, the bile-pigments being increased to three and a half times their normal, while the biliary acids fall to one-tenth. *Post mortem*, the gall-bladder is found gorged with a liquid as thick as tar, of a dark green colour.

We see, then, here a small class of drugs with similar characteristics as regards the secretion of the liver and as regards the method by which they find vent from the circulation to which they have gained access. We see, too, that there is a class of diseases which possess characteristics of the same sort; and with these we have dealt very briefly, partly because their general pathology is still obscure, partly because they are so uncommon that prolonged discussion of

them promises small profit in practice. But in summarizing the effects of these drug and disease poisons, we must not overlook the fact that we have dealt only with the extreme expression of their powers, and that behind these there are many gradations of lesser action.

Practice presents not only the coarse and extreme effects of organic disease, but also (and much more frequently) the minor ailments of deficiency and idiosyncrasy of function. The transient "bilious attack," with its headache, its nausea, its general malaise, the subicteric tinge of its conjunctiva, and the tenderness of its liver, is often, without doubt, composed of a chain of phenomena, similar in character, though infinitely feebler in expression, to those which depend upon the infection of epidemic jaundice or of Weil's disease, or which follow the exhibition of toluylendiamine, arseniuretted hydrogen, or phosphorus. Only we are dealing with poisons either of less potency or of lower dose. The 'sluggish liver' of the patient's phraseology is, in point of fact, far from sluggish. It is labouring for all, and for a little more than all, it is worth to eliminate a poison from the blood. This poison is in some cases an accumulation of by-products of physiological action denied their normal exit by some fault of bodily habit; in other cases it is the result of defective metabolism in the intestinal mucous membrane; in either instance the blood, loaded with *materies morbi*, is conducted to the liver by the portal vein, induces an excessive secretion of bile-pigments and a defective secretion of bile-acids; at the same time, or soon after, the epithelium of the smaller ducts swells in its efforts to secrete the poison; this process descends to the larger passages, the gall-bladder, and the bile-duct. Behind the obstruction thus formed there is pent up abnormal bile, and some absorption takes place. The poison in its action is similar to, though not identical with, that of the class of drugs which we have been considering.

But it is not to be supposed that all cases of biliousness (and still less that all cases of jaundice) are thus caused. There are ascending as well as descending affections of the bile-passages, and these occur both in disease and in

pathogenesis. The effects of mercury and of podophyllum will furnish us with examples of drugs which affect the total work of the liver from this side, and will suggest to the homœopath a means of conjecturing the pathology of the case before him by a study of its associated and apparently unessential symptoms; for I am convinced that just as a consideration of the pathology of a case is a factor in the selection of the simillimum, so also a wide knowledge of the indicated drug throws light on the processes of the disease in which it is indicated.

For the purpose of an epitome of the elimination of mercury, we will follow the "Encyclopædia of Drug Pathogenesis" in massing together all preparations of the metal itself and of calomel, and we will confine ourselves to the field of our present enquiry, though mercury, as becomes a polychrest, has many portals of elimination, such as the saliva, the buccal mucous membrane, the kidneys and the mamma.

In cases where poisoning has been brought about by inunction in animals, under precautions to obviate licking the anointed part, it is found that the stomach and intestines are full of dark masses (chiefly altered bile), the intestinal mucous membrane being congested, with traces of local inflammation; the follicles of the small intestine are swollen, the mucous membrane of the stomach spongy and ridgy, with slaty spots; the gall-bladder distended with grass-green bile. Prevost, who experimented in this field, discovered that "by whatever channel the mercury was administered the intestine generally contained large quantities of liquid of a yellow-brown or sanguinolent character; there was extensive desquamation of the mucous membrane of the small intestine and cæcum, with hyperæmia and ecchymoses." The selection of these particular sites renders it much more probable that the intestinal lesions are eliminatory than that they are due to a general elevation of blood-pressure. The problem becomes more complex and less suited to our purpose when poisoning is induced by repeated small doses than by one large one; for mercury is markedly cumulative under such circumstances, and the storage and circulation of the poison are difficult to understand.

In poisoning by podophyllum by injection into the circulation the mucous membrane of the small intestine, and especially of the duodenum, is found intensely inflamed. Numerous ulcers occur in the duodenum, and the inflamed surface is coated with tenacious mucus.

Such, then, is the poisonous action of drugs which are eliminated by the mucous membrane of the small intestine and which set up an ascending inflammation of the biliary passages. It exhibits a very different picture from that set up by those which establish a descending catarrh.

But behind such differences there are considerations much wider and deeper than a merely pathological interest—wider and deeper, too, than the fact that “biliousness” is only a generic term and calls for differentiation in drug treatment. The fact that the epithelium of the gall-passages has eliminatory functions both for drugs and disease products is only an example of what is going on throughout the whole body. The secernent and excretory power of the liver is recognized as immense, and the following are some of the drugs which are known to be eliminated in bile: the ferrocyanide, iodide, bromide and chlorate of potash; salts of copper, iron, lead, nickel, arsenic, silver, bismuth, and antimony; carbolic acid, salicylic acid and toluylendiamine.

The mucous membrane of the stomach is known to excrete urea, arsenic, cantharidin and some of the derivatives of opium. We have seen some of the likely and unlikely channels by which mercury escapes from the blood and the body.

Who can doubt that the bichromate of potash, or some of its derivatives, is excreted, like iodine, by the nasal mucous membrane, or that nitrate of silver escapes by the conjunctiva?

It would appear not irrational to regard what we have been in the habit of calling “selective affinity” as largely, if not entirely, a matter of eliminatory channels. Add to this that disease products escape in like fashion, and that in certain instances at least the disease product and the recognized curative simillimum exhibit the same eliminatory

preference. Are we not, then, within reach of a presumptive explanation of some instances of the action of the simillimum?

It is open to us to regard the whole excretory surface of the body, both internal and external, as engaged from time to time in eliminating autotoxins and microbial toxins. Each toxin has its favourite mode of exit, but under pressure of necessity and excess it can be eliminated by the most unlikely channels. Some of the products eliminated are highly irritating to the epithelium engaged, and there is good reason to suppose that in extreme instances the epithelium is actually destroyed by them. Furthermore, the mucus in which the products are conveyed is, as we have seen, sometimes irritating to the surfaces with which it comes in contact on its way out. Reabsorption, no doubt, takes place in some instances. From each and all of these factors symptoms are generated.

Side by side with this view of the body as a depurative agent, we are acquainted with drugs which choose the same channels of elimination, and effect the same irritation and changes on those channels. It is known that these drugs are curative in some of the diseases which they so closely resemble. Are we, then, to look upon their curative power as the one matter worthy of consideration?

Modern pathology is outgrowing mere dead-house phenomena and histology. It daily concerns itself more with the study of the vital chemistry and physics of disease processes. And it is here, I hope, that homœopathy will join hands with it. Hitherto we have been arguing from the symptoms to the drug, and we have no cause to complain of our results.

There are diseases of obscure pathology which are probably explicable by similar methods of observation and reasoning. I may use appendicitis as an instance. Such explanation appears to lie peculiarly within the province of the homœopath. When we can demonstrate the identity of processes disease-produced and drug-produced, and can demonstrate also the curative effect of the drug upon the disease, we may claim to argue from the drug and its known

action to the vital processes of health and disease. And if we fail to take this obviously logical step, we shall suffer for omitting to grasp the forelock of occasion. Others will take it, and a new scientific and progressive homœopathy will be discovered.

The {PRESIDENT remarked that the concluding paper of the session, to which they had just listened, would no doubt leave a lasting impression on the minds of the hearers. While the readers of other papers on therapeutics had approached the subject from the symptomatic standpoint, Mr. Wilkinson had looked at it from the pathological. Both views were important; both indispensable. His audience would perhaps be better able to appreciate the paper as it deserved when they could read it quietly in print. Meantime, as far as he (the speaker) had been able to follow the subject, Mr. Wilkinson, pointing out the relation between the elimination by the system of disease products and of drugs, had endeavoured to supply a method by which the selection of a drug for a given ailment might be confirmed. Supposing a certain drug had been chosen from the general symptomatology of the case, and then if a similarity in the process of elimination of drug and disease product could be noted, the choice of the drug would be thereby confirmed. He would like to ask Mr. Wilkinson if the experiments described with toluylendiamine had been carried out on dogs only or on man also. If only on the former, the results would not give a reliable basis for the employment of the drug in man. As an example of what Mr. Wilkinson would probably describe as the result of drug elimination, he would refer to a case then in the London Homœopathic Hospital. Some weeks ago an out-patient came to the ophthalmic department complaining of a condition but seldom seen in this country, though common enough on the Continent, namely, trachoma. The eyelids were very œdematous, and there was so much blepharospasm that it was barely possible to separate them sufficiently to make out the nature of the disease. After several weeks' treatment, chiefly by merc. corr., there was no improvement, and it was therefore thought necessary to bring the patient into hospital, so that the operation of canthotomy, for the relief of the blepharospasm, might be performed. Pending admission, argent. nit. 6 was prescribed, and a 2 per cent. lotion of argyrol to be used locally. A fortnight later he was admitted, and when Dr. Alexander went into the ward to see him he was surprised to find

him comfortably looking about him, with both eyes wide open, and hardly any inflammation left. The patient said that shortly after beginning the medicine he had been able to open his eyes, and the improvement had continued. The contemplated operation being no longer necessary, he was soon afterwards dismissed. He (the President) thought this case might be of interest as illustrating the principle that had just been introduced.

Dr. DYCE BROWN remarked that the therapeutic effect of so-called "liver" medicines was uncertain, especially podophyllum. Mr. Wilkinson had not given the constitution of toluylendiamine. Investigations on dogs were by no means to be accepted as indications for the use of drugs on man. After the effects of drugs on man became known, then a knowledge of that on animals might prove useful. If eliminations were general, then the theory of elimination as indicative of remedies might prove useful. Dr. Dyce Brown thanked Mr. Wilkinson for his contribution to the Society's proceedings.

Dr. GALLEY BLACKLEY was interested in toluylendiamine, and had published a paper on the subject in the *London Homœopathic Hospital Reports* about the year 1895, in which he had explained the chemical nature of the drug. The hæmoglobinuria as exhibited in cases of poisoning was explained by Mr. Wilkinson as the effect of elimination, the bile-acids damaging the red blood-cells. Phosphorus had the same effect. With regard to the theory of eliminations in general, toxæmia was frequently hæmolytic, but the channels of egress were abundant, and Dr. Blackley doubted that eliminatory effects or difficulties would be of great consequence therapeutically.

Dr. HAYLE (Rochdale) considered that varieties of elimination were dependent on the constitution, and they differed greatly, as, for example, from the skin, nose, &c., and he did not think too much importance should be attached to symptoms obtained in this manner.

Dr. NICHOLSON (Bristol) suggested that toluylendiamine would be useful in acute yellow atrophy of the liver, also in Weil's disease, merc. sol. being indicated as well in the latter. He considered the differentiation of symptoms in eliminators would help in settling the dose question.

Dr. ROBERSON DAY asked if toluylendiamine had been of service in the treatment of icterus neonatorum, the pathology of which condition was still uncertain.

Dr. NEATBY thought Dr. Hayle should give some reasons substantiating his opinion as to the unreliability of symptoms which could be termed eliminatory.

Dr. HAYLE, in reply, cited hepar sulph. as acting on the nose, the symptoms being eliminatory, and suggested that these symptoms were by no means so important as those of other drugs whose primary action was upon the nose.

The PRESIDENT said that, before calling on Mr. Wilkinson to reply, he would like to suggest that the apparent discrepancies referred to by Dr. Hayle might be explained by the phenomenon of idiosyncrasy. In one prover a drug might be eliminated by the nasal mucous membrane and in another by the liver, and it was therefore necessary to have quite a number of provers, so that all the different channels of elimination might be ascertained.

Mr. WILKINSON, in reply, agreed that comparisons of the effects of drugs in dogs could not be estimated as of value until the drugs had been proved in man. He thought the effect of argent. nit. on the conjunctiva might be eliminatory, and it was an illustration that eliminatory symptoms were of value. Hunter corrected previous experiments with toluylendiamine. Mr. Wilkinson had no quarrel with Dr. Hayle. Eliminatory symptoms do not render previous symptoms unimportant, and all symptoms are modified by constitution.

Subsequent Note by Mr. Wilkinson.

Since the above paper was read and discussed, I have had an opportunity for studying an article on "The Chemistry of the Liver in Acute Yellow Atrophy" by Dr. H. Gideon Wells, in the *Journal of Experimental Medicine*, November 16, 1907. A large number of amino acids, and histidin and lysin among the diamino acids, were isolated and estimated. Dr. Wells quotes Neuberg and Richter as finding during a similar research as much tyrosin in the blood as the hydrolysis of the entire liver would account for. The large quantity of free, soluble non-protein nitrogen present in the liver of the case which he examined compels him to support Neuberg and Richter when they suggest that these free amino acids "come through the intestinal walls without undergoing the normal synthesis, because of some pathological alteration in this structure." It seems, therefore, highly probable that toluylendiamine is converted into one of the actual poisons causative of acute yellow atrophy.

CASES AND SPECIMENS EXHIBITED AT VARIOUS MEETINGS.

CASES.

*Rodent Ulcer Cured by Zinc Electrolysis.*¹

Mr. DUDLEY WRIGHT stated that the patient was subjected to two sittings for a small rodent ulcer on the side of the face, and after two applications of the zinc, with the exception of one little nodule in front, the trouble had quite disappeared. It was a remarkable fact that only two applications were sufficient for the cure, owing to the small amount of zinc it was necessary to send into the ulcer to effect the change.

*A Girl of the Mongolian Type.*²

The child exhibited all the marks of the Mongol, and the following notes were added by Dr. Day :—

Both parents and two other children are normal. Attended a special school since 5 years old, but can only spell out words of one syllable. She is indolent in all her ways—backward in everything.

*Head Nodding.*³

A female child, aged 10 months, had well-marked head nodding with lateral nystagmus of the left eye.

*Tubercular Nephritis, Exfoliating Dermatitis.*⁴

J. W., aged 41, female. Two years and nine months ago patient had an attack of acute cystitis, with pain and frequency of micturition. She was treated by a doctor in London, and then went to Clifton, but returned to London in six weeks still ill. In October patient went to Bournemouth, and there saw Dr. Nankivell, who kept her in bed seven months, when she returned to London apparently quite well.

In January, 1908, dropsy developed, and patient again went to the Hahnemann Home, Bournemouth, where an injection of

¹ Exhibited by Mr. DUDLEY WRIGHT, November 7, 1907.

² Exhibited by Dr. ROBERSON DAY, February 6, 1908.

³ Exhibited by Dr. ROBERSON DAY, March 5, 1908.

⁴ Exhibited by Dr. GALLEY BLACKLEY at the Clinical Evening, June 4, 1908.

tuberculin T.R. was given her at beginning of April, and another on April 10. Red spots like vaccination marks appeared at once, and after other injections ten days later spread all over body, legs, and face. The dropsy disappeared, but the spots became much worse. When admitted to the London Homœopathic Hospital, May 28, 1908, patient had exfoliating dermatitis all over her.

An examination of the urine by the Pathological Department showed heavy deposit of pus and tubercle bacilli in fairly large numbers, which increased as the patient became worse.

Dr. Blackley remarked that they had found out this patient had had a skin eruption once before at the age of 20. This came on the elbows and knees, and was in all probability psoriasis. She had got rid of this, and the disease had not shown itself to any great extent since, but the effect of the second tuberculin injection was that the rash came out quite quickly, and within a few days she was almost covered as they had now seen her. The amount of desquamation was very great a few years ago. It was an unusual thing for it to follow psoriasis. He had a private patient in hand now who suffered for thirty-five years from psoriasis, which, when he first knew her, simply affected the leg below the knee, and remained at that for twenty years. Then quite suddenly, without any apparent reason, she began about four years ago to have generalized dermatitis, accompanied by high fever. This went on for about three or four months, and she lost flesh and strength to a great extent. After various remedies and local applications, she became fairly well. She had a good deal of psoriasis still, but not any generalized dermatitis. As to the treatment of these cases, the usual idea was that in a patient past middle life general exfoliating dermatitis was uniformly fatal. This woman was only 41. The other patient of whom he had spoken was 68. She was 64 at the time when the attack came on. He had seen one fatal case within recent years of a precisely similar character, in an old lady about 70. The disease certainly had the reputation of being fatal. He did not find that arsenic acted usefully. In fact, he had not found any medicine that seemed to touch the disease distinctly and indubitably. He thought that on the whole graphites had more effect than anything else, but that was not saying very much. He thought that these cases were much helped by keeping up the general health, feeding generously, especially with cod-liver oil. His private patient had a course of X-rays, but this had not the least ultimate effect. It appeared to do good for a few weeks, and then the patient

was practically as bad as ever in a short time. He did not think he could say that either X-rays or radium was useful. The effect was practically *nil*.

Dr. Neatby asked Dr. Blackley whether he attributed the dermatitis in his patient to the tuberculin, and whether it was at all a usual result after an injection of tuberculin.

Dr. Blackley, in answer, said that personally he thought the dermatitis was *post hoc*, and not *propter hoc*.

Dr. Byres Moir asked how often dermatitis exfoliata was associated with kidney disease. He had a case of dermatitis exfoliata only last year in a man who consulted Dr. Cooper, and who had kidney trouble. The action of the kidneys was probably deficient, and if the kidneys did not act the skin must carry on the work. The appearance of the skin disease might have nothing to do with the injection of tuberculin.

Mr. Johnstone said that a few years ago he had a case of an old gentleman, who died recently at the age of 86, and who had suffered from dermatitis. He had used the catheter regularly for the last twelve years. Mr. Johnstone got the patient to wash out his bladder, and that appeared to keep him all right; but occasionally—two or three times a year—he used to get dermatitis. He had an enormous hernia as well, and at the end he developed dermatitis exfoliata and died. Probably owing to the constant presence of septic material in the bladder, there had probably been infection of the kidneys.

Dr. Epps remarked that he had had a patient who had dermatitis exfoliata for many years, and eventually died of Bright's disease. He did not know that he had found any remedy really of any good. He asked Dr. Blackley whether the patients to whom he had referred had rigor or vomiting. He (Dr. Epps) had had a patient who had recurrent rigor, with a temperature of 105° F. This patient ultimately died. The morning after the first time that he saw him a rash had come on the patient's cheek. For about six months he had erysipelas, with exactly the same symptoms. He had that eleven times.

*Subsequent Notes on Dr. Blackley's Case of Tuberculous
Kidney and Dermatitis.*

On June 26 the patient was sleeping badly, had a good deal of pain, and vomited. On July 5 the skin was much better, but patient was worse in herself and could not sleep. She died July 7. A *post-mortem* by Dr. Watkins showed left pleura adherent in front, with some venous congestion in both lungs. The peri-

cardium contained a considerable quantity of straw-coloured fluid, the visceral pericardium being covered with a thick layer of lymph, having a warty appearance. Liver and pancreas normal. Gall-bladder distended with bile. The right kidney was considerably enlarged and filled with tuberculous deposit as large as filberts. The pelvis and the ureter were filled with pus. The right ureter was very considerably affected, and thickened with tuberculous deposit. The base of the bladder contained some small superficial ulcers. The left kidney was much enlarged and presented the usual character of the "large white kidney." The uterus and ovaries and Fallopian tubes were normal.

*Diabetes Insipidus.*¹

M. C., girl, aged 12 years, admitted for passing large quantities of urine and having great thirst. Patient had suffered for many years also from large appetite. She was very thin. Nothing abnormal can be detected in chest or abdomen. Urine, specific gravity 1000, appears like water, colourless, no albumin, no sugar, acid. Symptoms all diminished while patient was kept in bed, but returned as much as ever when she got up. Phosphoric acid 1x, scilla, sulphur, argent. metal., 30, quin. arsen. were given at intervals, with phos. acid between, but the output of urine continued to increase, sometimes reaching 125 oz. per day. The specific gravity, however, reached 1008. The patient gained in weight and her thirst diminished.

Dr. Byres Moir said that he had failed to make any impression by treatment on the amount of water. Now he was trying metallic silver at Dr. Goldsbrough's suggestion. The case was an interesting one. The child was not suffering in any way except in this respect. The mother also suffered.

Dr. Blackley asked whether Dr. Byres Moir had tried the elimination of chlorides from the diet.

Dr. Byres Moir: No.

Dr. Blackley said that he had seen one or two cases referred to in which the elimination of the chlorides had been useful, but he had not seen the cases himself.

Dr. Byres Moir, in answer to Dr. Stonham, said that the child had put on weight, having increased 7 lb. in two months.

Dr. Stonham said that a case came to his dispensary, that of a little girl, who lost weight every week. She had very intense thirst. Her mother could not prevent her getting up at night

¹ Exhibited by Dr. BYRES MOIR at the Clinical Evening, June 4, 1908.

and drinking her own urine. She would drink muddy water or anything that she could get. He put her on phosphoric acid.

*Arthritis Deformans.*¹

A. C., male, aged 64, a gardener, was in hospital September, October, and November, 1907, for sciatica, left side. He went home much better, but pain came back almost immediately, and patient was readmitted to hospital on May 27, 1908.

On June 4 an examination with X-rays showed arthritis deformans with osteophytic outgrowths. Hecla lava was prescribed. Patient was worse in wet weather.

Dr. Byres Moir said that in this case the man had no pain. The question was how to get him on his feet again. He had tried light baths. He had seen another case of the kind. It was that of a woman who for four or five years had suffered in the same way. She had no pain while she was lying down. She had had fearful sciatica for six weeks at a time, and she lay in bed and did nothing. In three weeks the pain passed off, and it did not return.

Dr. Goldsbrough said that the case reminded him of one recently under his care in which the symptoms were very similar. There was considerable weakness in the limbs. He found that bryonia helped, and also light baths. The patient, a man, went out of the hospital improved, but not cured. He had not taken any radiograph of the hip-joint.

*Chorea Presenting Unusual Features.*²

Winifred R., aged 5, ill for six months, was brought as an out-patient on May 7, and admitted on May 21. Child looked vacantly and her pupils were widely dilated. She could not sit up, or talk, or use her limbs. No irregular movements were noticeable until some voluntary movement was attempted. There was loss of power, and incoördination with all movements. No cardiac trouble. Stramonium prescribed. On June 1 the patient slightly better; looked more intelligent, had more control over limbs. Agaricus 12 given every four hours.

Dr. Goldsbrough invited suggestions as to treatment. The case had been improving under stramonium. What were the views of the members with regard to considerable doses of arsenic in these cases?

Dr. Byres Moir said that he had a case of chorea in which he

¹ Exhibited by Dr. BYRES MOIR at the Clinical Evening, June 4, 1908.

² Exhibited by Dr. GOLDSBROUGH at the Clinical Evening, June 4, 1908.

found that arsenic had no effect. It was a question whether there was a physiological action to be induced, and how far one had to take this into account in administering the drug.

Dr. Payne said that he had used arsenic in one case with good effect, and so he had suggested it. It was of no use to give it in small doses.

Distended Gall-bladder.¹

C. S., married, aged 56, has suffered for five years with pain, burning and aching in right hypochondrium. Two years ago noticed "a lump" in this position. In August, 1907, there was found a tumour 3 in. long and 2 in. wide, movable, smooth and rounded, dulness passing into that of liver at region of gall-bladder. Under berberis 1x for three months it almost disappeared, but has again reached its previous size. Much constipation; weight remained same for last five months; no attacks of biliary colic. *Case for diagnosis*: (1) Simple distension of gall-bladder; (2) the same with gall-stones; (3) complicated with malignancy.

Mr. Johnstone said that he thought this case was plain enough. It was a case of distended gall-bladder with the common bile-duct quite perfect. There was no obstruction to the flow of bile into the small intestine. Probably there were stones in the gall-bladder. He proposed to remove these later on.

Dr. Neatby said that Mr. Johnstone had mentioned that in the earlier progress of the case the condition almost disappeared and went down very much. He, too, had seen cases in which this happened two or three times. He wished to ask Mr. Johnstone whether, in the absence of jaundice and the absence of pain, he thought that it was necessarily gall-stones and not inspissated bile.

Dr. Reed Hill asked whether they thought that when they had operated on a case of gall-stone they had done all that was necessary. Had not they simply removed the result and not the cause?

Dr. Byres Moir said that he should certainly advise Mr. Johnstone to operate in this case. The operation was not a serious one nowadays.

Mr. Johnstone said, in reply, the proper treatment, he thought, was the removal of the gall-bladder. There was no doubt that many cases would be all the better for the gall-bladder being removed. If that organ was at all unhealthy it would be better that it should be taken away. He intended to operate as soon as possible.

¹ Exhibited by Mr. JOHNSTONE at the Clinical Evening, June 4, 1908.

*Herpes Zoster Ophthalmicus.*¹

A severe case of herpes zoster ophthalmicus in a woman aged 55, in which the ophthalmic division of the fifth nerve was involved, causing keratitis profunda—shown by the deep infiltration of the cornea—and irido-cyclitis. Owing to alteration in the nervous influence, the tension of the eyeball is subnormal, and cornea anæsthetic. There are numerous scars of herpes vesicles on forehead and scalp, with sensation of numbness and partial anæsthesia. Onset sudden, nearly eight weeks before admission, appearing in eye and forehead simultaneously.

Dr. Blackley remarked that this was a case of precisely the same kind as occurred in a private patient of his. The patient escaped opacity of the cornea.

*Papilloma of Tongue.*²

G. W., male, aged 20, engineer, was admitted to the hospital for small rounded swelling, $\frac{3}{8}$ in. diameter, on tip of the tongue, noticed first eight years ago. Growth slow at first, more rapid lately. No bleeding, no ulceration, general health good. Galvanic current with negative pole dipped in thuja was applied to the tongue three times, at intervals of two days between, without any apparent result. (Subsequent note.—On June 15 the tumour was removed, and three days later the patient left the hospital cured.)

*Compound Comminuted Fracture.*³

A. A., male, aged 28, carman, was brought into hospital on March 21 with right forearm broken by heavy cupboard falling on him.

The lower end of the upper fragment of the ulna projected through the skin, quite black and bare. The radius and ulna were both fractured at the junction of lower and middle thirds. Mr. Granville Hey operated immediately. Projecting bone and skin cleaned. Longitudinal incisions made in each side of forearm (on ulna side, passing through the wound). Fracture reduced and both bones wired. Arm too swollen for wounds to be closed completely. Dry dressing and splints applied.

Radiographed on April 1, the bones appeared in good position, but a week later ulna wound was found to be suppurating and

¹ Exhibited by Mr. GRANVILLE HEY at the Clinical Evening, June 4, 1908.

² Exhibited by Mr. DUDLEY WRIGHT at the Clinical Evening, June 4, 1908.

³ Exhibited by Mr. GRANVILLE HEY at the Clinical Evening, June 4, 1908.

the bone without union. Stitches were removed and splints reapplied.

The patient developed a bad throat, with increase in temperature, but this cleared in three days.

April 27, radial wound quite healed. Ulna wound still suppurating. Beers' congestive treatment was then tried, an elastic bandage being applied every day for an hour. Pus still collected, and lower part of wound was opened up with sinus forceps.

Dr. Payne said that Mr. Hey had requested him to ask the meeting for suggestions about the case. On one side of the bone there was a gap of $\frac{1}{2}$ in.

Mr. Johnstone said that he did not think Mr. Hey had yet given the case time. He should wait another three months, going on with the same treatment meanwhile.

SPECIMENS.

*Calculus from Ureter.*¹

Calculus removed by operation from the pelvic portion of the ureter. Successful result.

Gall-stone.

A large gall-stone occluding the ileum, as a result of which fatal intestinal obstruction occurred.

*Bilateral Herpes Zoster.*²

Photographs of a case of bilateral eruption of herpes zoster.

*Fibro-adenoma of Breast.*³

A large fibro-adenoma of breast undergoing myxomatous degeneration; duration more than twenty years. Successful operation. Microscopic section of the same.

*Malignant New Growth of Stomach.*⁴

Pyloric end of the stomach showing the presence of an extensive malignant growth. A glass rod was inserted into the contracted pyloric opening.

¹ Exhibited by Mr. DUDLEY WRIGHT, November 7, 1907.

² Exhibited by Dr. J. HERVEY BODMAN, November 7, 1907.

³ Exhibited by Dr. EDWIN A. NEATBY, November 7, 1907.

⁴ Exhibited by Dr. BYRES MOIR and Dr. FRANK A. WATKINS, December 5, 1907.

*Tuberculosis of Spleen, Lung and Liver.*¹

Spleen, lung, and liver infiltrated with acute miliary tuberculosis from a child.

*Enlarged Prostate.*²

Enlarged prostate, which was the cause of the distended condition of the bladder and ureters and also of the surgical kidneys. The patient died suddenly from extensive heart disease.

*Malignant Ulcer of Stomach.*³

Pyloric end of stomach showing a large malignant ulcer. Patient died from hæmatemesis. Gastro-enterostomy had been performed some considerable time previously to relieve the pyloric obstruction.

*Intestinal Diverticulum lying detached in the Gluteal Region.*⁴

Lily P., aged 14½, was admitted to Barton Ward in August, 1903, for a congenital tumour of the buttock. The left buttock was larger than right, and the anal cleft was partly obliterated. At the upper part of the swelling was a distinct tumour, bluish in colour, with dimpled surface, soft, non-fluctuating, and about size of a Tangerine orange. Under A.C.E. an incision was made in the median line over tip of sacrum and coccyx, and an encapsuled tumour was removed containing meconium. A lateral incision was made on left buttock, a fibrous band divided, after which there protruded a piece of intestine covered by a thin membrane. This was left *in situ*. The child soon recovered and was not seen again till November, 1907, when she was admitted into Durning because the tumour was causing difficulty in riding a bicycle. On the left buttock, close to anal fold, there is an irregular swelling, with dimples in the skin. There is a deep dimple over the coccyx. The tumour, which measures 4 in. in length, has some solid contents; at its lower part there is a discharging sinus, which proved to be an ischio-rectal abscess independent of the tumour.

¹ Exhibited by Dr. BYRES MOIR and Dr. FRANK A. WATKINS, December 5, 1907.

² Exhibited by Mr. KNOX SHAW and Dr. FRANK A. WATKINS, December 5, 1907.

³ Exhibited by Dr. GALLEY BLACKLEY and Dr. FRANK A. WATKINS, December 5, 1907.

⁴ Exhibited by Mr. KNOX SHAW, February 6, 1908.

At the operation a vertical incision was made in middle of swelling, opening a sac with comparatively smooth walls and containing a coil of intestine about 10 in. in length. The coil was circular in shape, in width from two fingers' to one finger's breadth. Faint longitudinal striation was seen, and there were a few appendices epiploicæ. The central portion was occupied by a mesentery, and at its lower and inner aspect a diverticulum passed downwards to left of middle line towards what seemed to be a rudimentary coecyx. The end of the diverticulum came away freely and had a blind extremity. No communication could be found with the rectum, and a finger in the rectum showed that there was a considerable wall of tissue between rectum and inner aspect of the sac. The coil of intestine was firmly distended with fæcal matter.

The case made a good recovery.

*Recurrent Abdominal Tumour.*¹

A recurrent abdominal tumour, weighing over 36 lb., removed after death. The original operation took place thirteen years ago.

Microscopic sections of the original and the recurrent growths from the same case.

*Cervical Epithelioma.*¹

A uterus showing cervical epithelioma, removed by a modified Wertheim operation. Recovery.

A microscopic section of the same by Dr. F. A. Watkins.

A microscopic section of the right ovary, removed from the same patient, showing glandular carcinoma, prepared by Dr. F. A. Watkins.

*Cervical Myoma.*¹

A soft cervical myoma growing into the broad ligament in a patient, aged 51, removed by abdominal hysterectomy on account of persistent hæmorrhage.

*Photographs of Gouty Arthritis.*²

An advanced case of gouty arthritis shown by photographs.

¹ Exhibited by Dr. EDWIN A. NEATBY, February 6, 1908.

² Exhibited by Dr. F. A. WATKINS, June 4, 1908.

Uterine Myoma.¹

A uterine myoma which was impacted in the pelvis. Removal for pressure symptoms. Recovery.

Uterine Polypus and Carcinoma.¹

A specimen in which adenomatous polypus and carcinoma were present in the same uterus.

Section of Axillary Gland.²

Showing (1) lymphoid tissue; (2) secondary deposit of carcinoma of breast; and (3) caseating tuberculous deposit. Other parts of the section show more recent tubercular deposits containing epithelioid and giant-cells.

Section of Uterus.³

The mucosa has undergone adenomatous degeneration. The uterus was removed on account of very severe hæmorrhage.

REPORT OF THE COUNCIL.

THE Session 1907-8 was opened on Thursday, October 23, when Dr. A. Speirs Alexander gave his presidential address, entitled, "Law *versus* Scepticism in the Principles and Practice of Homœopathy." The members of the Society were afterwards entertained at supper by the President.

Eleven papers have been read before the Society during the present Session. In order to test and to stimulate the interest in *Materia Medica* and *Therapeutics*, it was decided for this Session to hold four meetings of that Section and only two of the Surgical Section. The results of the experiment are as follows: Six papers have been read on *Materia Medica* and *Therapeutics*, three on *Medicine* and *Pathology* and two on *Surgery* and *Gynæcology*. The average attendance on the *Materia Medica* evenings has been twenty, on the *Medical* and *Pathological* evenings twenty-nine, and on the *Surgical* and *Gynæcological* fifteen.

The June meeting was devoted to a *Clinical Evening*, when twelve cases were shown and various specimens exhibited.

¹ Exhibited by Dr. NEATBY, June 4, 1908.

² Exhibited by Mr. KNOX SHAW and Dr. F. A. WATKINS, June 4, 1908.

³ Exhibited by Dr. G. BURFORD and Dr. FRANK A. WATKINS, June 4, 1908.

The visitors at the meetings included Dr. Williams of Agra, Dr. Gustav Sirsch of Vienna, Dr. Burton of Detroit, and Dr. Rome of Minneapolis.

Eight new members have been elected to the Society during this Session, the average number in the previous years of this century being 4.4.

The Society has lost by death two valued Fellows, Dr. Alfred Pope, who joined the Society in 1862, and Dr. Madden of Bromley, who became a member in 1876 ; and one member, Dr. Waddington of Bradford. Two members, Dr. Lestock Reid of Watford and Dr. Brooks of Nottingham have resigned, and Drs. Webster and Collins have ceased to subscribe.

The circulation of foreign periodicals has been discontinued owing to the irregularity with which the journals were forwarded by the members.

A sub-committee was formed to insure the presentation of the views of the Society on the utility of drug-testing on the human subject before the Royal Commission on Vivisection.

The new laws and by-laws proposed by the Council, referred to in the last Annual Report, were adopted by the Annual Assembly, and a complete copy of the laws and by-laws, as revised, was sent to all the members early in the Session.

The Index to Clinical Cases, Essays, &c., recorded in British Homœopathic Periodic Literature has been on sale, eighty-three copies having been disposed of.

THE BRITISH HOMCEOPATHIC SOCIETY.

Dr. BALANCE SHEET—Session 1907-1908. Cr.

RECEIPTS.		EXPENDITURE.	
	£ s. d.		£ s. d.
To Balance in Hand ..	23 8 3	By Rent ..	25 0 0
„ Dividends on Consols ..	4 19 4	„ Printing, less advertisements ..	127 10 6
„ Subscriptions ..	187 19 0	„ Reporting ..	16 16 0
„ Sale of Publications ..	13 6 10	„ Honorarium to Editor ..	10 10 0
„ Half cost of Plates ..	4 16 8	„ Library ..	4 9 0
„ Cash in hand ..	2 2 0	„ Postage and Stationery ..	7 10 0
		„ Cheques returned ..	2 12 6
		„ Refreshments ..	5 10 0
		„ Indexing Account ..	26 13 0
		„ Petty Cash ..	5 5 4
			£281 16 4
		„ Balance ..	4 15 9
			£286 12 1

C. GRANVILLE HEY, Auditor.
July 1, 1908.

JNO. G. BLACKLEY, Treasurer.

THE PRESIDENT'S VALEDICTORY ADDRESS.

BY A. SPEIRS ALEXANDER, M.D., C.M.

GENTLEMEN,—At the opening of the present session it was my privilege to bid you all a hearty welcome, and now, at its close, there only remains the less agreeable duty of bidding you farewell—for

“ Welcome ever smiles,
Farewell goes out sighing.”

In looking back over the work of the past year, I think we may at least congratulate ourselves on “something attempted, something done”; and this is in itself no small achievement, for, from a representative society such as this, a good deal is expected by all who have the advancement of medical reform at heart. If, then, we have accomplished anything at all for the promotion of that end, we have so far justified our existence as a Society.

During the past session our special principle of therapeutics, both in theory and practice, has received due prominence, and has been ably exemplified by many of the papers presented to us, alike from the clinical, the chemical, and the pathogenic points of view. Where all have been so excellent, it would be perhaps invidious to select one more than another for special notice on such an occasion as this, and I shall therefore content myself with referring to some of their subjects, rather than to their undoubted individual merits.

Tuberculosis, in its varying aspects, together with its appropriate treatment, whether in accordance with our more usual practice or with that of opsonic principles, has been brought thoroughly up to date, and the relation between this latter form of homœopathic therapeutics and the older method demonstrated. Thus the Society has had the advantage of participating in the results of researches on this subject carried out by some of its own members, as well as in those of workers in other fields—results which

demand and deserve the attention with which they are being welcomed.

In the department of *materia medica*, one new drug has been added to our already wealthy repertory. Radium, in its physical aspects, had before been made familiar to us, and now that we possess its provings in the healthy human body, a sound basis for its clinical employment has been established. We have now, therefore, the responsibility of putting the experiences laid before us to the test of everyday practice, and of recording our results.

Amid the consideration of subjects more particularly within the aim of this Society, that of others of general interest has not been forgotten. The science of medicine, the natural history of disease, the various and most modern means of diagnosis, together with certain methods of physical treatment, have all found an important place in our deliberations and discussions. The first aphorism to which our great Master gave expression in his "Organon of the Art of Healing" was this: "The physician's highest and only calling is to restore health to the sick, which is called healing." But as one necessary means to that end is to arrive at a correct diagnosis, we can welcome every fresh aid that science provides for this purpose; and here I may refer to the valuable contribution we have received on the use and purposes of the sphygmomanometer, an instrument that bids fair to become an absolute necessity in the armamentarium of every well-equipped physician.

Much as we value such additions to our resources, we must never lose sight of the importance and necessity of diagnosing, not only the disease, but also the appropriate remedy for it; and in this connection I cannot do better than remind you once again of the weighty words in paragraph 153 of the "Organon": "In making this comparison (that of disease symptoms with drug symptoms) the more *prominent, uncommon, and peculiar* (characteristic) features of the case are especially and almost exclusively considered and noted; for *these, in particular*, should bear the closest similitude to the symptoms of the desired medicine, if that is to accomplish the cure."

It is only by bearing this principle in mind, and putting

it into practice in our daily work, that we can hope either to succeed in our efforts, or to maintain the cause to which we are pledged.

Apropos of the papers that have been provided and their authorship, perhaps a word in season may not be amiss. With the exception of the first and last delivered during this session, all have been the work of members resident in London. While the Society feels indebted to the latter, and to all its contributors, for their unwearying efforts, I should like to point out that more frequent papers from provincial members would be welcome. If these are less numerous than could be desired, the reason cannot be in any lack of material, for amid the wide field and varied practice at the command of our provincial brethren much mental pabulum and many instructive themes are to be obtained. It may be that a feeling of diffidence may hinder their productive efforts, but my own experience in former years of the consideration shown by my urban colleagues, and which I gratefully acknowledge now, enables me to assure them of a similar and no less cordial reception.

Once again, and inevitably, death has been busy during the past year in our ranks, and we have to mourn the loss of two colleagues, the one full of years and literary attainments, the other cut down while still in the heyday of activity. While we lament their departure, we honour their memory, and here record our appreciation of their life's work. They were men of whom it may be said that they had the courage of their convictions, and may their example in this direction stimulate and stiffen our own!

Gentlemen, I will detain you no longer than is necessary to tender you my hearty thanks for the loyal support you have given me during my tenure of this chair, the remembrance of which will long be green in my memory; and to wish you, in full measure, all the rest and recreation to which your labours during the past session so richly entitle you. May you return in due time, with renewed health and vigour, to once more take up those labours for the good of humanity, and the furtherance of our common interests, under the guidance of my old friend and worthy successor, Dr. W. Cash Reed.

MINUTES OF THE SOCIETY MEETINGS.

INDEX OF CLINICAL CASES.

At a meeting of Council held on June 30, 1908, the secretary was requested to bring more fully under the notice of the Fellows and members the publication of the "Index of Clinical Cases," and to urge them to possess themselves of a copy at the favourable terms offered.

The TENTH MEETING of the Session 1907-8, and the first of the Annual Assembly, was held at the London Homœopathic Hospital on Wednesday, July 1, 1908, at 8 o'clock, Dr. Speirs Alexander, president, in the chair. The following Fellows and members were also present: Dr. Blackley, Dr. Dyce Brown, Dr. Cronin, Dr. Roberson Day, Dr. Epps, Dr. Goldsbrough, Dr. Hayle (Rochdale), Dr. Granville Hey, Dr. Macnish, Dr. Neatby, Dr. Nicholson (Bristol), Dr. W. P. Purdom, Mr. Knox Shaw, Dr. Wynne Thomas, Dr. Tindal (Exeter), Dr. F. A. Watkins, Dr. Wheeler, Mr. Wilkinson (Windsor).

NEW MEMBER.

William Ernest Falconer, M.B., of 35, Wellington Square, Hastings, was elected a member of the Society.

SECTION OF MATERIA MEDICA AND THERAPEUTICS.

A paper was read by Mr. C. J. Wilkinson of Windsor, entitled "Eliminations," which was followed by a discussion. This paper, with the discussion, appears on pp. 352-363 of the current issue of the JOURNAL.

The ELEVENTH MEETING of the Session 1907-8 and second of the Annual Assembly was held on Thursday, July 2, at 5 o'clock, Dr. Speirs Alexander, president, in the chair. There were present: Dr. Blackley, Dr. Roberson Day, Dr. Epps, Dr. Goldsbrough, Dr. Hawkes (Liverpool), Dr. Granville Hey, Dr. Johnstone, Dr. Neatby, Dr. E. B. Roche (Norwich), Dr. William Roche, Dr. Stonham, Dr. Storrar (Ramsgate), and Dr. Wilmot (Plymouth).

NEW MEMBERS.

Arthur Roberts, M.D.St.And., M.R.C.S.Eng., L.S.A.Lond., D.P.H.Lond., of Albert House, Albert Street, Harrogate, and Walter Oliver Steinhall, L.R.C.P., M.R.C.S.Eng., L.S.A.Lond., of Withington, Manchester, were elected members of the Society.

The Report of the Council (p. 374) and Balance Sheet (p. 376) were presented and passed.

OFFICERS FOR 1908-9.

The following officers were elected for the ensuing Session :—

President : Dr. Cash Reed, of Liverpool.

Vice-Presidents : Dr. Theophilus Ord, of Bournemouth, Dr. Stonham.

Treasurer : Dr. Blackley.

Council : Dr. A. Speirs Alexander (ex-president). *Fellows*—Dr. Burford, Dr. Johnstone, Dr. Byres Moir, Mr. Knox Shaw. *Members*—Dr. Cooper, Dr. Wheeler.

At the conclusion of the business of the Annual Assembly the President delivered a short valedictory address, which appears on p. 377 of this issue of the JOURNAL. A resolution of thanks to Dr. Speirs Alexander, proposed by Dr. Blackley and seconded by Dr. Goldsbrough for his conduct in the chair during the Session, was carried by acclamation, and this brought the Session to a close.

At a meeting of the COUNCIL for 1908-9, held on Tuesday, July 7, 1908, the following officers were chosen for the ensuing Session :—

Secretary : Dr. E. A. Neatby.

Editor : Dr. Goldsbrough.

Librarian : Dr. Cooper.

Secretaries of Sections.

Materia Medica and Therapeutics : Dr. R. M. Le H. Cooper.

General Medicine and Pathology : Dr. Frank A. Watkins.

Surgery and Gynecology : Mr. James Eadie.

The evenings of the Session were allotted to the different Sections as follows :—

1908.—October 1.—Presidential Address.

November 5.—Materia Medica and Therapeutics.

December 3.—General Medicine and Pathology.

- 1909.—January 7.—Materia Medica and Therapeutics.
February 4.—Surgery and Gynæcology.
March 4.—Materia Medica and Therapeutics.
April 1.—General Medicine and Pathology.
May 6.—Materia Medica and Therapeutics.
June 3.—Surgery and Gynæcology.
June 30.—General Medicine and Pathology,
July 1.—Annual Assembly.

LIVERPOOL BRANCH (OFFICERS FOR 1908-9).

President : Dr. Conrad Theodore Green.

Vice-President : Dr. Thomas H. Hayle.

Secretary and Treasurer : Dr. James L. Hawkes.

Representative on Council : Dr. Alfred E. Hawkes.

SUMMARY OF PHARMACODYNAMICS AND THERAPEUTICS.

Extracted from Exchange and other Journals by the Editor.

Agaricus in a Febrile State.—A young lady, 32, blonde, with fine silky hair, lax muscles, nervous temperament, the daughter of a homœopathic physician who had recently died, had a temperature of 101° F., and was extremely weak. Her flesh was sore, she felt she had been pounded; she had a bursting, throbbing headache, < by light, noise and motion. A backache was severe and sensitive. It seemed to burn like fire. The pulse was weak, soft and too frequent, bowels confined, and no appetite. There was chill, followed by high fever and profuse sweat in the evening. She was delirious then, and every muscle of the body twitched until she became exhausted. Bell. 30 was given without effect. Agaricus cm. in water, a teaspoonful every two hours, had prompt effect. There was a paroxysm of chill and heat the next day, but not afterwards. In two weeks she was up and about, although weak and easily fatigued. (Dr. C. E. Alliaume, in the *North American Journal of Homœopathy*, July, p. 355.)

Facial Paralysis Cured by Silica.—A case of facial paralysis reported by Dr. Hervey Bodman illustrates markedly the necessity for taking account of the sequence of symptoms in selecting the remedy. T. M., age 31, male, had suffered from nasal catarrh, with purulent discharge and subsequent severe pains deep in the parietal and mastoid regions, and subsequently facial paralysis ensued. In addition to the usual symptoms of motor paralysis there was impairment of taste on the same side of the tongue. A few days' administration of silica 30 effected rapid improvement. Dr. Bodman thought the cause of the paralysis to be suppuration in one or more of the deeper nasal accessory sinuses, probably the sphenoidal or posterior ethmoidal. (*British Homœopathic Review*, May, p. 291.)

Hyoscine Hydrobromide in Status Epilepticus.—In the *Journal of Mental Science* for January, 1908, Ruffle states that

he has usually successfully treated the status epilepticus with hyoscine hydrobromide in the following manner. Great care is necessary in selecting the source and quality of the drug. That prepared by Merck was used by the author and by Wood. A carefully prepared solution is made of 1 in 400, a small amount of preservative being added. At the onset of the status 4 minims of this solution is given by hypodermic injection. If no improvement in half an hour, 2 to 4 more minims are given; the following morning an enema is given. This treatment has been used on every case of the kind during the past six years, and has seldom failed. (*Therapeutic Gazette*, June, p. 420.)

Magnesium Sulphate. *Local Use in Erysipelas.*—Dr. Henry Tucker, surgeon to the genito-urinary department of the Philadelphia General Hospital, again speaks favourably of the local use of a saturated solution of magnesium sulphate in cases of erysipelas. He quotes nineteen cases secondary to other ailments and in severity more or less malignant, in which all acute symptoms subsided in from one to six days. The solution is applied on a mask made of from fifteen to twenty thicknesses of ordinary gauze, of sufficient size to extend well beyond the area involved, thoroughly saturated with the solution, then covered with oiled silk or waxed paper. It is renewed as often as is necessary to secure a continuously moist dressing. The dressing should not be removed for inspection of the parts oftener than once in twelve hours, and then immediately reapplied. The infected area should not be washed while this treatment is continued. The patient very promptly obtains relief from the distressing local symptoms usually present. The temperature usually falls to normal during the second twenty-four hours and does not rise again. (*Therapeutic Gazette*, June, p. 381.)

Natrums. *Characteristics.*—In one of his interesting lectures Dr. C. M. Boger gives the following comparison of the characteristics of the natrums: *Natrum mur.*—sadness, worse from consolation; fever blisters; craves salt; dryness, constipation, periodicity, especially 10 a.m.; pyrexia with head symptoms; hot during menses; borders, especially of hair. Aggravation: heat and light. Amelioration: pressure against back. *Natrum carb.*—feeble, but impressionable; indigestion, intolerance of milk; pyrexia with mental symptoms. Aggravation: open air, exertion during menses. Amelioration: eating, boring into nose. *Natrum phos.*—general acidity; cheeks alternately red; increased mucous secretions; deep yellow creamy coatings about

base of tongue ; loose, lumpy stools. Aggravation : light and heat. *Natrum sulph.*—head symptoms, especially from injury ; liver symptoms, lying on left side ; loose, noisy, watery stools after rising ; cough compels holding of sides ; chilly during menses. Aggravation : dampness, light, heat. Amelioration : open air. (*Homœopathic Recorder*, August, p. 347.)

Natrum Muriaticum in Ague.—Dr. W. J. Hawkes points out that the chief indications for *natrum muriaticum* in ague are terrific headache and craving for salt. The chill comes on at 9 to 10 a.m. every alternate day, accompanied with a terrific headache. A patient, whose case is recorded, had one chill only after the 200th attenuation was administered. (*North American Journal of Homœopathy*, July, p. 349.)

Nux Moschata.—Dr. Edmund Carleton, of New York City, draws attention to the pathogenesis of *nux moschata* as strongly resembling the clinical picture of sleeping sickness, and suggests that trials should be made of it in countries where that malady is prevalent. He also cites a case of neurasthenia in which sleepiness predominated, and *nux moschata* proved a successful remedy. The patient was a young lady of literary pursuits, whose nerves had broken down in consequence of continued hard work and worry. She slept heavily most of the time. On waking, the eyes were dry and the tongue was so dry that it stuck to the roof of the mouth. She felt exhausted and would not rise from her bed. The skin was dry and cool. There was no fever. The abdomen was distended, but not sore. There were flatulence and loose stools ; menstruation was late and scanty. *Nux moschata* 200 was given. She recovered speedily and easily. (*Homœopathic Recorder*, July, p. 302.)

Peliius Berus. Poisoning by Viper or Adder.—Dr. T. E. Purdom reports a case of poisoning by an adder, which happened to his son—the age not stated. He received two punctures near the end of the finger of the left hand. Within five minutes the joint had swollen considerably, and tingling pain was felt all up the arm. The punctures were sucked hard and ordinary blue applied. This was at 6.45. At 7.5 he began cycling. After riding four miles he became ill, and on getting off the bicycle felt faint, and was presently very sick. The whole hand and wrist were swollen. Sickness continued, but he was able to walk to a doctor's house. The doctor reports that the retching was very severe, and evidently cerebral in

origin. The patient was at times collapsed, pale and sweating, with an almost imperceptible pulse. At 10 p.m. strychnine $\frac{1}{100}$ gr. and morphia $\frac{1}{4}$ gr. were injected hypodermically, and a hot compress of lead and opium lotion was applied to the hand. He was taken upstairs comatose at 10.30 and put to bed, which partially roused him. At 11 he was thirsty, and continued so until 8 a.m. Was constantly sick after milk and soda. At 2.20 a.m., after some sleep, he woke and was rational, but memory of previous night's events hazy. At 8.30 a.m. good breakfast, and no nausea. Travelled home same day. The patient stated that while riding his bicycle he felt as if his ribs were being pressed in, and could not take a full breath, felt giddy and bilious. Legs stiff and ached all over; perspired vigorously all night; arm throbbed whenever awake. On the evening of the 21st he was very slack and had an irritable, patchy tongue; the arm was swollen up to the shoulder nearly twice the normal size, bluish in colour and very tender. Hot fomentations were applied, and apis 3x given in frequent doses. Axillary glands very tender. Recovery was gradual, but complete by the end of a week. Dr. Purdom adds the report of another case, that of a naturalist who was bitten in the hand. The wound was sucked, but the throat became affected so much that he at once collapsed. The chief symptoms were great swelling of the arm, of the tongue and right eye; giddiness, nervousness, faintness, sickness, compression of chest, aching and stiffness of the limbs, collapsed feeling, great thirst. (*British Homœopathic Review*, June, p. 347.)

Sea-Water as Saline Injection.—In a long article glowing with a highly developed literary and scientific imagination, Dr. Arnulphy, of Nice, discourses on the therapeutic application of isotonic sea-water. It appears that, in cases where saline injection is called for, pure sea-water rendered isotonic with the blood-serum acts very promptly and satisfactorily, and also, according to the author, in many other conditions. He claims that sea-water has dynamic properties over and above an artificially prepared saline fluid. "Sea-water is much more complex than it appears at first sight. It is not merely a solution of various salts; besides a few saline constituents, it is shown to contain in a state of extreme division seventeen metals and metalloids, among which are boron, bromine, iodine, arsenic, copper, lead, zinc, silver, gold, strontium, cæsium, rubidium. But the remarkable thing is that all these constituents are found in exactly the same proportion in the fluids of the human system. It is to be supposed

that each of these bodies, some of them quite rare in Nature, play a part," and probably their presence in infinitesimal quantities may account for the wonderful effects of sea-water. As regards preparation of sea-water for use, ocean water alone is admissible, to avoid superficial bacterial colonies, captured far away from all sources of pollution, at a depth of at least 36 ft., collected into sterilized glass jars filtered upon absorbent cotton first, then through porcelain filters, carefully sterilized. In order to render it isotonic with the blood plasma, one-third sea-water is to be mixed with two-thirds of a very pure and light spring water carefully filtered as above. During these processes the water should be kept as cool as possible, and for use it is drawn up into special sterilized bulbs, the extremities of which are immediately sealed. To sterilize by boiling destroys the therapeutic value of sea-water and renders it toxic. (*Medical Century*, August, p. 244.)

Secale Cornutum in Gangrenous States.—Dr. John H. Storer, of New York City, contributes an article on ergot in the treatment of gangrene, giving details of four cases in which the drug proved markedly beneficial in what would usually be considered physiological doses. *Case 1.*—On January 15, 1906, Mrs. S. was found in a semi-comatose condition; temperature 106° F., absolutely pulseless, body cold and clammy, abdomen tympanic, mucous membrane colourless. She had had a miscarriage. Curetting was performed, without ether, the patient being insensible to pain. The tissues seemed at the beginning of decomposition, the finger-tips were turning black. Strychnine, brandy, adrenalin, camphor, were given without effect. In this state mxxx. of ergone were given every two hours hypodermically. After twelve hours a faint returning pulse was felt, and in twenty-four hours consciousness returned. At the end of a week all functions were restored to a moderate but safe condition. *Case 2.*—Mr. M. had what looked like an acute ischio-rectal abscess. On opening, there issued wind and yellowish, thin, bad-smelling fluid. There was a cavity 8 in. deep along the rectum, in which the tissues were in the process of breaking down. The next day the perineum was intensely swollen, also the scrotum, and on the latter black spots appeared. The case was one of severe gangrene of the scrotum, the patient exhibiting severe constitutional symptoms; temperature 104° F., brown tongue, besotted appearance, weak pulse and prostration. After consultation, the case was regarded as hopeless. The gangrenous process extended up to the abdomen, and sloughing became extensive in many places. Gangrenous patches were cut away as quickly as possible after their appearance.

The case lasted six weeks before healthy granulations appeared. Various local applications were used from time to time—peroxide, formalin, electrozone, argyrol, balsam of Peru, with occasional applications of nitrate of silver. After the operation of cutting away the gangrenous patches on the scrotum, ergone was administered hypodermically in $mxxx$. doses every two to four hours. This was continued for four weeks. After the sloughing, when there was a good deal of pus being thrown off, 10 drops of echinacea were added to the dose of ergone. The case completely cleared up, and after two years there remains only a small canal, an inch deep, beside the rectum. *Case 3* was one of diabetic gangrene in a traveller, aged 40. The great toe was injured by a nail, an abscess formed, and gangrene followed. The second and third toes were beginning to show signs of the disease. He was put on *secale 3x*; the disease advanced rapidly. Ergone in $mxxx$. doses appeared to control it, but the amount of sugar in the urine increased rapidly, and the ergone was discontinued. The gangrene immediately took on fresh life, and the patient died in four days after discontinuing the ergone. *Case 4*, also a diabetic, developed gangrene of the big toe on the right foot. About half the ball of the big toe was black and sloughing, and gradually extending. Ergone was given by the mouth, 1 drachm every three hours. After a few days the gangrene was checked. In ten days all had sloughed off. In two weeks afterwards the limb had entirely healed. Ergone is an aseptic, clear transparent fluid, about the strength of the fluid extract of ergot. (*North American Journal of Homœopathy*, August, p. 398.)

Squill in Broncho-pneumonia.—In an interesting paper Dr. Charles Graves describes three cases of broncho-pneumonia in which recovery looked hopeless, when he gave some few drop doses of the B.P. tincture of squill with prompt and gratifying results. The special indication for this medicine (as has frequently been verified in homœopathic practice.—Ed.) is copiousness in the secretion and expectoration. In this it is allied to *antim. tart.*, but in Dr. Graves's cases the choice of squill was abundantly justified by the results, and it should always be thought of and compared with *antim. tart.*, especially if the latter appears to be failing in effect.—(*British Homœopathic Review*, June, p. 343.)

Sulphur in Headache.—Dr. W. J. Hawkes, of Los Angeles, reports a case of chronic headache which was quickly relieved by sulphur. The patient, a female aged 38, machinist, has suffered for more than a year. The head aches all over, with a terrible

drawing feeling ; wakes with it, in morning. The paroxysms are increasing in severity and frequency. They are now twice a week. She becomes unconscious while at work and drops her head on her machine. The head sometimes feels large, and she thinks intensely on trivial matters. Heat about vertex. Feet often cold with burning in soles at night. Gets weak with empty, gone feeling during fasting. Sensitive to cold air and cold water. Tired on waking. Sulphur was prescribed on the basis of the more characteristic general symptoms. There was marked general improvement in two weeks. Only one paroxysm at that time. At the end of three more weeks very much better and did not return.—(*North American Journal of Homœopathy*, July, p. 349.)

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EDITOR

G. F. GOLDSBROUGH, M.D.

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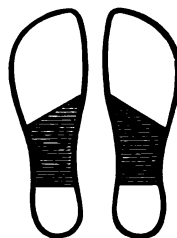
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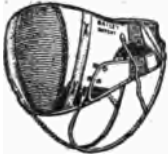
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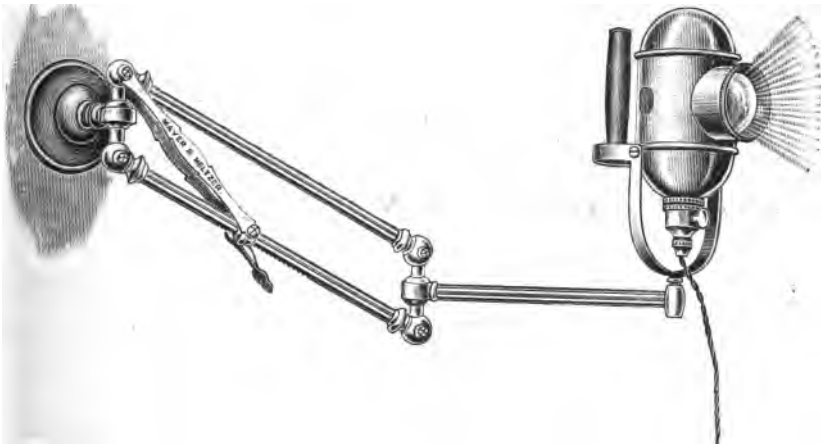
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